

A
COLLECTION OF PAPERS,

ON THE SUBJECT

OF

ATHLETIC EXERCISES.

&c. &c.

By Sir JOHN SINCLAIR, Bart. M.P.

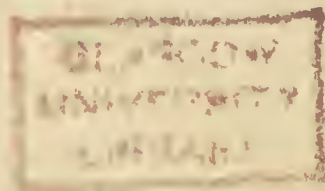
LONDON:

PRINTED BY E. BLACKADER, 10, TOOK'S COURT,
CHANCERY LANE.

1806.

Sir JOHN SINCLAIR requests your Acceptance of the following Paper on Athletic Exercises, &c. and begs that you would have the Goodness to transmit to him any additional Facts or Observations you can collect, regarding so interesting an Inquiry, which promises to throw considerable Light on the Preservation of Health, and the Attainment of Longevity.

*Letters may be addressed to him, either at No. 5,
TERRACE, NEW PALACE-YARD, LONDON; or
CHARLOTTE SQUARE, EDINBURGH.*



ADVERTISEMENT.

In the course of the inquiries in which I am now engaged regarding health and longevity, my attention was necessarily directed, to the success with which the human frame was invigorated, by those who trained up persons to athletic exercises; and also to the arts by which various animals were improved in respect to strength, spirit, or speed. It seemed to me, therefore, of the utmost importance to ascertain, whether the same means might not be of service, in the preservation, or the cure of disease, in the establishment of health, and the attainment of longevity. With a view of ascertaining such important particulars, I requested a gentleman, distinguished for his talents and skill in medicine, to assist in drawing up the queries, together with an introduction to them, which will be found in the subjoined paper; and I afterwards made every possible exertion to procure answers from persons the most likely to furnish useful information. I also prevailed on a respectable physician, Dr. BUCHAN, to draw up a general view of the system adopted by the ancients for
A training

ADVERTISEMENT.

training their *athletæ*. But anxious that a subject of such peculiar importance should be thoroughly investigated, I resolved to print a few copies of the particulars I had been able to collect, for circulation among intelligent friends, with a view of collecting as much additional information as possible; and I earnestly intreat the assistance of those for that purpose, who may have it in their power to promote so useful an enquiry.

It was thought advisable, on the present occasion, to print the Answers to the Queries, in the words of the persons who gave them. When the work, however, with which I am at present occupied, (namely, the Code of Health and Longevity,) is published; it may, perhaps, be deemed more expedient, to give merely the substance of the information, either already got, or which may afterwards be obtained by the circulation of this paper.

JOHN SINCLAIR.

No. 5, Terrace,
New Palace Yard, Westminster.
10 May, 1806.

Observations on the training of Pugilists, Wrestlers, Jockies, and others, who give themselves up to Athletic Exercises; with some Queries for discovering the principles thereof, and the process of training Running Horses, &c. with a view of ascertaining, whether the same can furnish any hints serviceable to the Human Species.

PROFESSIONAL men are ready to acknowledge, that prevention is better than cure; and the best informed ingenuously admit, that organic diseases, once confirmed, are beyond the reach of their art. As organic diseases generally proceed from slow and gradual changes, they may certainly be prevented by temperance and labour; by activity of body, and contentment of mind. In regard to the common metaphysical expressions, “ of the exhausting of
“ the excitability; of the wearing of the parts; of
“ the attrition of our fluids, in circulation, against
“ the solids; of the abrasion of the solids by friction; of the debility produced by the most natural powers supporting life, namely, the waste of
“ substance created by that exercise and labour, for
“ which we seem peculiarly destined,”—all these expressions are extremely suspicious. The speculator is always to be suspected, when forsaking plain direct facts, he involves his want of meaning, and conscious ignorance, in learned words, or metaphor.

These metaphorical expressions have originated in a persuasion, that the bones, cartilages, muscles, and other solid parts, being once formed, *are permanent,*

manent, because the identity of the individual is permanent; and that being once formed, and always retaining one shape, their actual component parts must continue the same. Nothing in philosophy is farther from the truth. There are experiments to demonstrate, that every part and particle of the firmest bones, is successively absorbed and deposited again*. The solids of the body, whatever their form or texture, are incessantly renewed. The whole body is a perpetual secretion, and the bones and their ligaments, the muscles and their tendons, all the finer and all the more flexible parts of the body, are as continually renewed, and as properly a secretion, as the saliva that flows from the mouth, or the moisture that bedews the surface. The health of all the parts, and their soundness of structure, depends on this perpetual absorption, and perpetual renovation; and exercise, by promoting at once absorption and secretion, promotes life, without hurrying it; renovates all the parts and preserves them apt and fit for every office.

Nutrition belongs not to the stomach alone, which but prepares the food, and converts it into chyle, but to the vessels by which it is circulated, and ap-

* This has been ascertained by giving madder to growing animals, especially pigs and fowls, among their food. It is found, that the madder tinges the bones, layer after layer, with a red colour; and by the deepness of the tinge, demonstrates the succession in which the particles of the bone are absorbed and deposited. This is, I believe, the conclusion which physiologists have formed.

and

appropriated to the nutrition of parts, which of course is performed by every petty artery of the body.

In nothing should we be more anxiously careful, than, in laying down rules, which must affect the health of thousands; and whenever we proceed on doctrines, unsupported by fact, wherever we divert mankind from those amusements and labours to which nature excites us, we should proceed with particular caution. We read in books, that life and the body are but as a given quantity of living energy and living materials, to be expended and used with discretion and economy; and that the sum of excitability, which is born with the child, is expended towards the close of life. The doctrine of abrasion also intimates, that our solids are perpetually wasting, and that it is by the diminution of moisture,—the aridity of solids,—the scantiness of fluids and the slow induration of the solid parts; that the body becomes shrunk, emaciated, stiff, and motionless, before it sinks into the grave. And, rash as the doctrine seems, it has been boldly asserted, that “to live with as little food, and as little exercise as possible, is the surest means to preserve the body and to live long.” To live with as little food, and as little exercise as possible, would make a man little better than a mere grasshopper. A man living thus, would be a voluntary prisoner, wan, colourless, fleshless, bloodless, having no speculation in his eyes, no marrow in his bones; his complexion would declare him what he was. This system practised, either in infancy, in the prime of manhood, or in the decline of

of life, would abridge it. Ascetics are a proof, not of the length of life, which temperance insures, but of the premature old age which abstinence brings upon us. The squalid look, the hollow cheek, the matted hair, the emaciated body, only prove how much, by such criminal self-denial, the body suffers, with but little profit to the powers of the mind. Let us then take care that our philosophy be not too severe; for men may run into real danger, if we take from them every fair indulgence, or divert them from following the dictates of nature. The fairest livers, who have not abused, but have enjoyed their strength and health, have in general enjoyed it longest.

There are habits which seem to be natural to, and congenial with, the several periods of life. The child should merely suck, sleep, and vegetate. The boy should ramble wild and unconstrained, little oppressed with tasks or studies, and nourished with abundance of simple food. The youth should be temperate, sober, active. The old man quiet, sedate, self-indulgent; should have long sleep, delicate food, rich wines, and agreeable temperature; little labour, and a chearful mind. Nature assigns us vigour, spirit, enterprise, and foresight, in the early part of life, to treasure up the needful indulgencies for age. Parents are careful of our first infancy; we ourselves ought to provide for our latter childhood.

The most intelligent professional men, have an opinion concerning the functions of the skin, consonant

sonant with that of the vulgar ; and more refined, only from their assigning a general cause for those effects, of which all of us are conscious. The skin is not regarded merely as an organ of secretion, destined for draining off superfluous moisture, or saline particles, from the general mass of fluids, but as a surface of more active circulation, which solicits the blood to the very extremities of the vessels, and thus contributes to support and complete the circulation of the blood, and to nourish the parts within. The skin is regarded as connected, in a peculiar manner, with all the parts of the cellular substance, interposed betwixt the muscles, and involving the blood vessels. The state of the skin indicates the condition of that cellular substance, whose office it is to conduct the blood-vessels to all parts, especially to the muscular flesh, and to nourish the parts; and while the circulation of the skin is lively and active, that of the involved parts can never flag. The condition of the bowels, and of the skin, are the first and most natural points for the physician to attend to. It is by regulating these, that he regulates the pulse; by stimulating or soothing them, that he raises or depresses the vital actions; and it is matter of common observation, that in animals, a good skin is the criterion of health, and the dryness of the skin, the forming of scabs or eruptions upon it, and the clapping of hair, (as it is called by those who have the care of flocks), are the first and surest signs of approaching disease.

Next to the free circulation of the blood, through
all

all the body, terminating in the surface, that of the free transit of the blood through the lungs, is essential to health.

The oxydation or chemical change produced by air upon the blood, is essential to its vital properties. A free and powerful respiration, is most essential to a fresh colour of the face, to lively spirits, and chearful feelings, and to the healthy and vigorous actions of the body. “ It is my breathing hour of “ the day,” says Hamlet to Osric. It is a princely thing to set apart hours for exercises; and there is little doubt, that if all those, who linger away their hours in luxurious and indolent relaxations, were to assign a regular portion of their time, to the hardy and manly exercises of walking, riding, fencing, &c. and would take *their breathing hour*, they would breath long and well.

These reflections naturally arise upon considering the almost incredible perfection, to which those, whose profession it is to train men to athletic exercises, have brought their respective arts. By certain processes, they improve the breath, the strength, and the courage of those they take in hand, so as to enable them to run thirty, or walk a hundred miles, in a given space of time; to excel in wrestling; or to challenge a professed boxer. Would it not then be a most important addition to the facts we already know concerning the means of improving strength, and ensuring long life, if authentic information could be procured from those districts where athletic exercises prevail, which are esteemed the best and surest process

processes for training men for foot-races, trials for strength in wrestling or boxing matches, or for raising the strength and courage of game cocks. or improving the wind, strength, and speed, of running horses to their highest pitch *.

Those who give themselves out as skilful in this art, attend to the state of bowels, the skin and the lungs. They use such means, as reduce the cellular or fatty substance, and invigorate the muscular fibres. When they take a man in training for any feat of this kind, he is not oiled and suppled as the ancient athletics were ; for as their common modes of life were hardy and active, they needed no other preparation : but he is sweated, purged and dieted, and then put upon trial. He is purged with very drastic purges, to reduce his grossness. He is made to walk out under a load of clothes ; his walks are regularly increased, and a certain number of times a-week ; he is laid between two feather-beds ; sweat promoted by drinks ; his limbs taken from between the feather-beds successively, and rubbed very roughly. After enduring for many hours this state of suffocation, he is comforted with a draught of ale or wine. The purges and sweatings are repeated, according to the grossness of his habit, and from time to time his

* Though not immediately connected with the object of this paper, it may not be improper to suggest, that it would be of great importance, if medical gentlemen, whether in the army or navy, who have been on service, were also to point out the various circumstances which tended to support, or to abate, the strength and courage of the soldier or the sailor.

trainer, (regarding him no otherwise than he would a running horse, under the like discipline), takes him out, and makes trial of his wind and strength, and does not cease till he has made him as lank as a greyhound, and almost as fleet. A man, even in the best ordinary health, becomes giddy and breathless when he strikes; and sick and pale on receiving a few blows. He is thence unable to bear any unusual exertion, and by inference prone to disease. If, by extenuating the fat, emptying the cellular substance, hardening the muscular fibre, and improving the breath, a man of the ordinary frame may be made to fight for one hour, with the utmost exertion of strength and courage; the inquiry which I have already suggested must be of the highest use. For were this new train of facts regularly laid before professional men, and were they enabled thus to judge of the influence which the methods of these practical philosophers have on regulating the functions of breathing, perspiration and digestion; it would be drawing into the province of science, an art connected most particularly with the means of prolonging life, and hitherto known and practised only by a few insulated individuals, of course imperfectly known, and of too limited use.

I question whether the athletics of old used similar means; whether they were equally successful; whether there ever were, in any climate, age, or country, more hardy or powerful frames than those of our English pugilists. In Cooke's voyage, we are told of the marked inferiority of the English sailor,

sailors, in wrestling or boxing, to the naked sun-burnt heroes of the South Sea Islands. But an English sailor, though full of spirit and vigour, is as clumsy as a clown, and could not even row against an inhabitant of the Sandwich Islands. An English bricklayer, blacksmith, or drayman, however, who liked the sport, and was practised in balancing and striking, might have challenged the whole of the tawny nation.

With a view of collecting such important information, I am very anxious that the following queries should be proposed to those who profess the art of training pugilists, wrestlers, and runners of foot-races, by such intelligent men as have the opportunity of conversing with them.

1. By what criterions or tests, they judge of the muscular strength, or wind, or other qualities of those who seek to put themselves under training. What is the earliest, and what is the latest age they would attempt to train?

2. How they judge of the length of time that may be required for bringing a man into good plight, vigorous health, and free breathing; and what period of preparation is usually required for running a match?

3. What purges they use; and in what succession; and by what rules do they administer them; and how do they judge of their effects? Is the purging only preparatory, or is it regularly continued? Is it meant, by this process to reduce the plethoric state of the system, (on the idea that there is too
great

great a quantity of blood), or is it simply designed to put the bowels in the most favourable condition, for easy and good digestion? Is the reducing the actual size of the belly, necessary to more free and perfect breathing*.

4. Is the diet rich or simple; of animal food, or of vegetable; in great quantity or sparing; is it increased gradually, or diminished gradually? What meals have they in the day; and at what hours; one or more; frequent feeding, in small and fixed portions, or full and substantial meals? What kinds of flesh or meat is reckoned the best; whether beef, mutton, veal, pork, lamb, or fowl? Are any kinds of fish allowed? What quality of food is most conducive to strength? What quantity is necessary for maintaining the system in its most perfect state of vigour? Do they feed much in the intermediate days of the purges? Is abstinence required when they take their physic?

5. What kinds of liquors are reckoned best? Whether wine, ale, water, spirits, &c.? Whether given hot or cold; in what quantities; and when ought they to be given?

* The effects of taking up a running horse from idleness and soft pasture, to hard food and regular exercise, is attended with this peculiar effect; that while the animal becomes lank, sleek, and glossy, while he gets fire in his eye, and a new vigour in his limbs, and wind and speed, his belly, (swollen with coarse indigestible food, eaten in great profusion), is drawn into half its size. May we not then presume from this analogy, that the state of the belly has a remarkable effect upon the wind?

6. Are

6. Are the very violent perspirations into which they throw their patients, designed to reduce the system, to extenuate the fat, to lessen that quantity of blood, the excess of which makes us giddy or short-breathed; or is it merely designed to produce a new condition of the skin, more favourable to health, and muscular vigour; to produce a sharper appetite; a greater demand for food; and a quicker nourishment, or a greater nutrition from a more slender diet? Is the sweat at first produced by exercise, and only continued by the person, when trained, being put between two feather-beds, and encouraged by drinks; or is it produced by force of sweating drugs, or violent heats, or by continued friction? At what hours are the perspirations brought on? How is the pupil treated when the sweat is over? What becomes of the skin of a fat man, when, by the process, he is reduced in size, and rendered lean? Does it hang loose, or is it tight? Has it any effect upon the bones?

7. What hours of exercise do they require of their pupils during the day? At what hours do they send them out in the morning? How long do they continue abroad? Are they loaded with clothes after the body is reduced, and becomes limber, and thin and muscular; or only while the sweating process continues? Are they fed before they go abroad, or when they return? What trials are made of their strength? When is a man known to be up to his full strength and breath in training? At what hours do they go to bed? What sleep are they allowed?

What

What indispositions are they subject to during training? Are there any circumstances by which the process may be interrupted; or any circumstances, in consequence of which, it must sometimes be abandoned?

8. What is the state of the health, after they give up training? Are they subject to any complaints; and what are they? How long does the acquired excess of strength continue?

9. It is most interesting to learn, on which part of this process, the purging, the sweating, the exercise, or the feeding, they most depend; and whether it procures a permanent increase of vigour, easily maintained by suitable diet and exercises, or only a temporary excitement, calculated for the particular occasion? Also, whether persons have ever thought of undergoing this process, not for the purpose of running matches, but to recover health; with what success this has been done, and whether it is to be recommended for gout, corpulency, asthma, nervous disorder, or other maladies, as likely to be of service?

These are questions, of the importance of which, those who are best able to answer, may not be fully aware. But nothing which so suddenly changes the powers, and the very form and character of the body, from gross to lean, from weakness to vigorous health, from a breathless and bloated carcase, to one active and untiring, can ever be unimportant, either to the art of physic in general, or to that branch of it, more immediately connected with inquiries regarding health and longevity.

The following Observations were taken by an Amnuensis from the vivâ voce Answers made by Mr. J. Jackson, the celebrated scientific Teacher of the pugilistic Art, to the preceding Queries, as they were read over to him.

In regard to size, that is immaterial, for those who are trained to running, may be from five feet to six feet high ; beyond that is too large, nor is there an instance of a very big man, being a first rate runner. As to form, long thighs and short legs are desirable. One of the most famous runners, West of Windsor, is only about five feet four, and he ran thirty-one miles in four hours and a quarter, at the age of forty-four. He beat the famous Powel. As to tests or qualities, they put men upon trial with short runs, sparring, &c.

A person trained to boxing ought to be of a good size and weight. The earliest age is eighteen, and thence to forty, but seldom beyond that age, though attention to diet and exercise, on the same system, would doubtless be of use to persons beyond that age.

In general, they suppose that two months is sufficient to bring a man into good plight, either for boxing or running a match, provided he is previously in tolerable good condition; but if the person is fleshy, it may require three months.

The training is begun with an emetic, and in about two days afterwards give them a dose of Glauber-salts, from one to two ounces, and missing about two days,

days, another dose of physic, and then a third. It is supposed that one emetic and three doses of physic will clear any man; and after the body is thus cleared of all noxious matter, it must be kept in good condition. It is necessary to give the emetic and physic at the commencement. The object is partly to get all the superfluities away, either of blood or any thing else, and also to promote good digestion afterwards. No man with a great belly can breathe freely.

The diet is simple; animal food alone: and it is recommended to take very little salt and some vinegar with the food, which prevents thirst, and is good to promote leanness. Vegetables are never given, as turnips, or carrots, which are difficult to digest, nor potatoes, which are watry. But bread is allowed, only it must be stale. They breakfast upon meat about eight o'clock, and dine at two. Suppers are not recommended, but they may take a biscuit and a little cold meat, about eight o'clock, two hours before they go to bed. It is reckoned much against a man's wind to go to bed with a full stomach, and they in general take a walk after supper. Some people will have tea, but it is not recommended, nor is it strengthening, and no liquor is given warm. Full and substantial meals are given at breakfast and dinner. Beef and mutton are best. It is contended, that there is more nourishment in the lean of meat than the fat, which is fully proved by experiment; fat being of a greasy nature, causes bile, and fouls the stomach. The lean of fat meat is best. Veal and lamb are never
given

given, nor is pork, which has a tendency to purge some people. The legs of fowls, being very sinewy, are much approved of. The yolk of a raw egg is reckoned the best thing in a morning, and is supposed to prevent bilious complaints.

Beef steaks are reckoned very good, and rather under done than otherwise, as all meat in general is : and it is better to have the meat broiled, than roasted or boiled, by which nutriment is lost. No fish whatever is allowed, because it is reckoned watery, and not to be compared with meat, in point of nutriment. The fat of meat is never given, but the lean of the best meat. No butter nor cheese on any account ; cheese is indigestible ; meat must be dressed as plain as possible, without seasoning of any kind ; no eggs are given excepting the yolk raw in the morning. Men will live longer on beef, without change, than any other kind of animal food, but mutton is reckoned most easily digested. The meat must always be fresh, and never salted. No quantity of meat is fixed ; it depends upon the constitution and appetite. Little men will eat as much as large men, and very frequently more. Pies and puddings are never given, nor any kind of pastry. As to hard dumplings, people may as well take earthen-ware into the stomach, they are so very indigestible.

In the intermediate days of the purges they feed as much as usual. No soups are given, nor any thing warm, excepting with their physic, which is worked off with gruel. After the physic is worked off, they get for their dinner a little boiled mutton

and broth, with the fat taken off. The broth must be let cool, in order to take off the fat, and then it may be warmed again; or beef-tea, in the same way; but with little or no salt, as it occasions thirst.

Malt-liquor is best, and particularly home-brewed beer, old, and never bottled, that being windy. As to wine, a little red wine, which is much preferable to white; never more than half a pint of wine after dinner, and none after supper. The quantity of beer not to exceed three pints during the whole day, taken with breakfast and dinner, and a little after supper. Sometimes white-wine and water is allowed to a man at breakfast, who does not like malt liquor. Too much liquor is apt to swell the belly, and is bad for the wind. The liquor should not be taken in great draughts, but by mouthfuls, which quenches the thirst better, and that is the only object required. No water is given alone. Malt-liquor is almost always permitted. Spirits never allowed on any consideration whatever; not even with water. Milk is never given, as it is apt to curdle upon the stomach, and has a fattening quality. Liquor is always given cold, but never before meals, unless in cases of extreme thirst, when a little white wine and water may be taken. If a person is rather inclined to corpulency, and instead of taking large draughts and great quantities of liquor is satisfied with three pints a-day, he will lose three or four pounds of his weight imperceptibly, in the course of two months. A gentleman in training must follow exactly the same rules as others; but if he merely wishes to get into good condition,

condition, he may take wine and water instead of malt-liquor, if he prefer it. Much drinking promotes perspiration, which is very weakening.

The violent perspirations are intended to extenuate the fat, and also reduce the quantity of blood, and makes it thinner and lighter. Giddiness is much owing to foulness of stomach, as well as headaches and other complaints. Excess of blood also produces giddiness, but that is corrected in the course of training. The skin becomes much finer, but the pores closer. The skin is cleaner, and the veins distinctly seen through, and the skin also becomes elastic.

The appetite becomes much sharper by training. In training, the alvine evacuations are not very abundant, as so much matter goes off by perspiration. Perspiration is only intended to take off the superfluities of flesh and fat, which gives a person wind and strength. The exercise is always begun early in the morning, in summer at five, in winter at half past six, or as soon as it is light. We prefer rising early in the morning, indeed it is indispensable. Perspiration is usually produced by exercise, and no drugs given for that purpose. The pupil is rubbed extremely dry with cold flannel, and has a change of clothes of course. Young people might wear calico next the skin, but older people wear flannel, which is more general. The skin of a fat man when he becomes lean, does not hang quite loose about him, but gets pretty tight and elastic. The bones get harder and tougher, and are less liable to be injured by blows or exercise.

They have an extra quantity of clothes to increase the perspiration, during the race which may be continued for a mile or two in a morning. Their race is always in flannel; their walking exercise in their usual clothes; they come home, are rubbed dry gradually, generally are laid down on the bed and are rubbed in that situation, one limb after another, rubbed and clothed. They get their breakfast about eight o'clock, and after remaining at home about an hour they take their regular exercise, either walking or cricket. The more they are in the open air, the firmer their flesh becomes, and they never mind the weather, only change their clothes if wet. Those who are trained to boxing get a run in the morning, as those who are trained to running, and the same exercise, physic, &c. But they are not put between feather-beds, or over-loaded with clothes, as those who run are. It is known when a man is up to his height by the ease and speed with which he does his mile, and his condition at the end. They go to bed at ten, and are allowed from six to eight hours sleep.

They are sometimes a little feverish at first training, but are not liable to any other indisposition. If feverish, not quite so much exercise; exercise always creates a little thirst until they are in high condition.

The state of health after training is always good, and not subject to complaints. The acquired state of health would probably continue if the system was persevered in.

The purging and sweating are both of service, and necessary, but the exercise and feeding are the most essential.

essential. There is no instance as yet, of any person being positively put in training for the sole purpose of recovering health, but it certainly would be of great use in many disorders: and it is known, that a gentleman, after living hard in London, has gone to the country, and by living according to the above system, in some respects, has returned to London in perfect health.

REPLIES

BY MR. JACKSON

TO SOME ADDITIONAL QUERIES.

1. Some boxers have lived long: Broughton to the age of eighty. Stevens, the nailer, above eighty; George Maggs, of Bristol, is about eighty, and a remarkably fine looking man. But many of the principle boxers have died young, owing to excesses of every sort, after the training was over; but were it not for that circumstance, and the injuries from blows in the body, they would live long enough: blows in the head are soon recovered.

2. A person in high life cannot be treated in exactly the same manner at first, from the indulgencies to which he has been accustomed; nor is his frame in general so strong. They eat too much made dishes, and other improper food, and sit too long at table, and eat too great a variety of articles; also drink too much wine. No man should drink more than half a pint of wine. They also keep irregular hours, and lie too long in bed.

3. I am

3. I am convinced that the gout might be prevented by following a regular system, and it is probably owing to their greater temperance that women have it so seldom. Even after having had the gout, by living very plainly and taking regular exercise, the disease has been prevented from recurring; keeping the shoes easy is of great use where gout attacks the feet.

4. A course of training would be an effectual remedy for bilious complaints.

5. Corpulent people, by the same system, could be brought into a proper condition.

6. It would prevent the rheumatism, by taking great care to keep the clothes dry; with regard to the stone and gravel, exercise is materially useful in these complaints, as it makes the urine pass off quickly.

7. As to consumption, the frame of such persons is in general too delicate to carry the training to any extent, but being much in the open air is certainly of great service.

8. Bathing is of great use. To prevent colds, bathing the feet in cold water every morning is of great advantage to men.

Bathing in salt-water three days a-week is salutary, but the shorter time a person remains in the water the better. Fresh water is good, if salt cannot be had. The tepid bath was never tried.

9. Electricity has a greater effect upon muscular and healthy men than others, and more upon them than even upon children, and gives them a greater shock, probably owing to the greater resistance.

West of Windsor could have gone over a hundred miles, running it in eighteen hours; and other people, properly trained, could do the same if, naturally formed for running. West could run forty miles in five hours and a half, which is near eight miles an hour. Mr. Fozzard, of Parklane's head ostler, known by the name of Fozzard's Joe, made ten miles in fifty-seven minutes, at forty years of age. He was however beat on Sunbury Common, by a Warwickshire man, who walked the last 500 yards in at the end of the race, which was ten miles an hour. Joe was in a second within the time. It was a most sultry day, and the runners must have been very much exposed to the dust of 500 horsemen, who were present. Four miles have been run at York, two years ago, in twenty minutes and nineteen seconds. They are famous in Yorkshire for running, but the Lancashire men are the best short-racers, being continually in practice. A curious fact is, that in racing, for the first 2 or 300 yards one feels very much distressed, after that a *second wind* comes, which lasts until one is spent with bodily fatigue. A quarter of a mile may be run about a second or two under the minute, and the half mile in two minutes; one mile a quarter of a minute under the five. Two miles has been done under ten minutes. 100 Yards has been done under ten seconds.

Common emetics are given, such as ipecacuana.

Persons trained, are generally costive. To keep clear of griping pains, no vegetables are given, which are of an opening quality: for the same reason pork
and

and veal are avoided. The skin always becomes quite clean in training, even although formerly subject to eruptions.

Mode of feeding post-horses.—Half a bushel of oats each day, on an average; generally as much as they can eat, but very little hay, which is reckoned bad for the wind. Beans are given, though heating, on account of the horses being so much exposed, and liable to be neglected in the stable. But for hunters, fine white pease are much preferable, being less heating. Even deer are fed well on white pease.

ADDITIONAL QUERIES SUGGESTED BY A FRIEND,

1. Why do you prefer early rising? Is not the morning air raw, cold, and moist, often accompanied with thick fogs, and consequently unwholesome?

2. Would not biscuit do better than bread, as any thing fermented is not reckoned strengthening.

3. The antients thought that water was the best drink instead of fermented liquors. Has it ever been tried in any training in England?

4. What is reckoned the proper quantity of sleep?

5. What would be the effect of training persons who have nervous disorders?

6. Would it have a tendency to prevent palsy and apoplexy?

7. The ancients reckoned pork the most nourishing diet.

ANSWERED BY MR. JACKSON.

1. The air is always cooler in the morning, therefore exercise can be easier taken. Men should be
able

able to bear every kind of weather, only their feet must be kept dry; they never sit down without changing their clothes, whilst they are training, for fear of the rheumatism.

2. Soft bread, or new bread, is never eaten, being of a spongy nature, and expanding in the stomach; stale bread is wholesome, but probably biscuit might be as good. Several people prefer biscuit. No salt meat is given, nor any thing that can create thirst. The less one drinks the better. Drinking certainly encourages soft unhealthy flesh.

3. Has never known a person drink water alone during training. Malt liquor, good and old, without bottling, is best. If any person accustomed to drink wine would try malt liquor for a month, he would find himself much the better for it.

4. Eight hours sleep is necessary, though much depends upon habit. People who take a good deal of exercise must have rest.

5. Any gentlemen during training, may occasionally read; but in general, boxers, &c. are employed in cricket, and other active amusements. In Broughton's time they were used to have music, which is very proper, and dancing, if they like. The mind is diverted from intense employment. They play quoits, which is a fine exercise.

If a muscular man in training gets much thinner, his exercise must be reduced, but if he gets fatter, it is a proof it agrees with him.

6. Nervous disorders are always prevented; never has seen an instance of nervous disorders in trained persons.

7. Palsy prevented by the same means. There never was an instance of a trained person paralytic, which is supposed to proceed from want of exercise. The blood is so fine and thin that disorders of this nature are obviated.

Perspiration is particularly good, which improves the wind. Perspiration from exercise never weakens.

Boxing is the best exercise of any, from exercising all the members of the body. Fencing occupies only one side. Most people are right-handed, and the exercise is partial, but boxing calls both arms into action, and both hands must be equally employed both in hitting and parrying. In this species of exercise the mind also, must necessarily be more occupied.

8. By training, the mental faculties are also improved. The attention is more ready and the perceptions more acute, probably owing to the clearness of the stomach and the better digestion.

9. The use of solid animal food seems absolutely requisite to produce great bodily strength; vegetables do not appear to contain so much nourishment.

10. Training always appears to improve the state of the lungs; one of the most striking effects of it is to improve the wind, that is, it enables a man to draw a larger inspiration, and to hold his breath longer.

11. Clearness of the skin is the best proof of a man being in good condition. The state of the skin is the criterion by which amateurs judge of a person being fit for exercise. During a course of training,
the

the skin always becomes clear, smooth, well coloured, and elastic.

12. A man properly trained, feels himself light and *corky*, as the technical phrase is.

13. Persons who are regularly and constantly exercised, as fencing masters, &c. retain their appearance, carriage, and shape to the last.

14. A head proportionally small is supposed to betoken corporeal strength; and a person so formed is reckoned peculiarly fit for training.

Answers to the Questions for the training of Men for running; communicated by Mr. JOHN HALL, of BEVERLEY, YORKSHIRE.

1. Muscular made men, round in their chests, short in their waists, long in their thighs, from five feet seven, to five feet ten, from twenty to twenty-six years of age are the fittest for running.

2d. It is extremely difficult to judge of the length of time, till they have had a few runs. A month is the general time required for training for a match.

3. A drastic purgative once during training, and that at the beginning. Judge of the effect from the operations preparatory to reduce the plethoric state of the system. Reducing the belly is necessary to a more free respiration.

4. Simple animal food, broiled and steeped in vinegar, eaten with old white bread as much as they will eat; no vegetables, no fat, no stimulating spices, two meals a day, *viz.* at eight in the morning and five in the afternoon; nothing but the lean part of
legs

legs of mutton, except for a change, a fowl or rabbit, perhaps once a week, to be eaten with vinegar ; no fish ; abstinence under the physic, of course.

5. Good old ale, with a toast, three or four pints taken at different times in the course of the day.

6. The utility of the sweating process is to remove the obesity ; and is produced by running exercise ; increased by feather-beds and warm diluents. Three sweats in two days, well rubbed with flannel, and kept within doors till cool. Every one knows the skin to be elastic. Living osseous matter is always in a state of decomposition by absorption and deposition.

7. The running exercise three miles twice a day ; in summer, five o'clock in the morning and four in the afternoon : in winter, in light and dark ; to walk a great deal, not loaded with clothes ; fed when they return from running exercise. Two trials during training, when they can run the farthest in the least time. They go to bed one hour and half in the middle of the day, and at nine o'clock at night ; sleep as much as they can when in bed ; no wife or substitute. Indispositions accidental ; discipline must be strictly observed, or abandoned all together.

8. Stretched-good-health, the acquired excess of strength will remain according to different circumstances,

9. The chief parts depended on are exercise, sweating, and feeding ; a temporary excitement of strength for a particular purpose, not calculated for permanency.

ADDITIONAL QUERIES.

It is extremely desirable, in such important investigations as those connected with the training of men for the acquisition of strength, that the information should be as minute as possible. Sir John Sinclair therefore requests, that the gentleman who was so good as to answer the questions regarding the training of men would take the trouble of sending answers also to the subjoined.

1. Can men be trained to advantage of a different make than the one described, and older than twenty-six years.

2. What drastic purgative is found to answer best, and is it never given but once?

3. It is said that Mr. Smith used particular medicines in training? Is it known what they were?

4. What reasons are assigned why reducing the belly is necessary to a more free respiration?

5. When the meat is broiled, how is the vinegar used; and in what quantities, and how much meat, at an average, may be consumed per day?

6. Is wine ever taken, or water, and whether hot or cold?

7. Are the persons trained put between feather-beds, and how often. What warm diluents are used?

8. On what circumstances does the duration of the acquired excess of strength depend?

9. Does it occur to the very intelligent professional gentlemen who was so obliging as to answer these

these queries, that any of the measures adopted for training men, as practised in Yorkshire, could be employed for the purpose of diminishing corpulency, whether in males or females, or in preventing the gout, or any other disorder incident to the human species.

[The Replies to these Queries have not as yet been received.]

The subsequent Observations relative to the Diet of a Class of Men who perform long Journeys on Foot in India, were received from Mr. DUFFIN, many Years Resident Surgeon at Madras.

In reading over these Observations and Queries, it occurs to me, that some useful information might be obtained from the East Indies which might furnish hints serviceable to the subject enquired of; and I know no one who could, or would, more readily give this information than the present Governor of Bombay, Jonathan Duncan, Esquire, a person eminently qualified, from his long residence in the country, and his extensive knowledge of the language of the inhabitants, and of their customs, habits, and manners. Sir Charles Warre Malet, Bart. at present residing in England, who passed a considerable part of the time he was in India, at Cambay, in Guzerat; and at Poonah, the Mahratta capital, might, perhaps, give some useful hints. There is a cast of Hindoos called, on the western side of India, Pattamars, whose sole occupation is to carry letters
and

and dispatches by land ; and they perform journeys almost incredible, in the time allotted, as is the small quantity of food they subsist on, during these journeys ; they generally go in pairs, for fear of one being taken ill, and are allowed *enams* (rewards), in proportion to the expedition with which they perform their journey ; from Calcutta to Bombay I think twenty-five days are allowed ; from Madras to Bombay, eighteen days ; and from Surat to Bombay, three days and a half ; these periods entitle them to the highest enams ; if they exceed, a smaller enam is given in proportion, and this is always written on the outside of the packet. I cannot say to what age these persons are enabled to continue in their calling, or what becomes of them when they are no longer able to perform these journeys, but I rather think they are not long lived. It might be useful to know what training they undergo, to enable them to follow this employ, for follow it they must, the father being a pattamar, the son must be a pattamar, and so on *ad infinitum*.

To the east and north of India, these persons are called by different names, as Cossids, or Harkarrahs ; but I believe they are of the same cast of Hindoos ; they are generally tall, five feet ten inches, five feet eleven inches, and six feet high. By the end of their journey their legs are frequently much swelled, and as soon as they have delivered their packets, they retire to rest, taking care to have their feet raised higher than their head and body, and they will

will sleep for twenty hours together. The only things they carry with them is a little copper pot, and their ghur-ghurry, hubble bubble : the first being suspended by a string, serves to draw water from the wells they pass, and it also serves to boil a little rice occasionally; the latter serves them to smook tobacco. This is as necessary to them as food. The rice and tobacco they purchase in the Bazars as they pass along.

In one of the volumes of the Asiatic Researches is a drawing of Praun Pooree, a devotee who has his arms fixed over his head. I think he detailed to Mr. Duncan the regimen he underwent to enable him to perform his vow.

This man I saw at Bombay a few years ago. He was apparently advanced in years, but had a healthy look, and enjoyed, in general, good health.

I saw another Fackeer at Bombay, who all the day suspended himself to the branch of a tree, by a cord round his loins, with his head downwards, and his feet in the air, balancing himself by holding the cord between the great and next toes; the only sustenance he took in the twenty-four hours was a little milk in the night; and yet this man, from the appearance of his body, thighs, and legs was sleek and healthy. I did not see his face, as the upper, then the lower part of the body was covered with a cloak. They, his attendants, told us, he never came down; however, I believe it was only for a short time, and that in the night when no one was likely to see him.

In

In my morning's ride on horseback, and in my afternoon's ride in a carriage, I constantly saw this man, during his stay in Bengal, in the position I have described. This Fackeer wanted a sum of money, and fixed upon the cast of Purvoes, in Bombay, to extort it from. The Purvoes are Hindoos, and are the persons generally employed by the English gentlemen in keeping their cash and accounts; they are also employed in all the public offices of government; and in order to force them to a compliance with his demand, he gave out that he would hang there until he died, unless they gave him the sum he wanted, and then his death would be on the Purvoes' heads. He certainly would have obtained this sum, as the Purvoes began to be seriously alarmed, and had begun to make a collection amongst their cast, but the police interfered, and gave him to understand they would give him a flogging, if he did not go about his business. If this had happened in the Mahratta state, the police, or ruling man, would have no farther interfered, than to have gone shares with him in the sum extorted. At Poonah, and in Guzerat, they are much in the practice of training hawks to catch game, and in Guzerat they train the cheeta, or small leopard, to catch the antelope, but this he does by stealth, not by speed; for, if the antelope gets sight of him before he makes his spring, the cheeta will pursue in vain, for I believe the antelope is the fleetest of animals; and, contrary to all others of the deer kind, which conceal themselves in the jungles (woods), the antelope feeds on

the most extensive plains, and cautiously avoids the jungle. They are so much accustomed to see the hackries, (country carts) pass, that they take little notice of them, and of course are easily shot. When I was at Surat the chief could get an antelope whenever he wanted one.

It is observable, that there are more instances of longevity amongst the Mahometans than the Hindoos, in India. Their modes of life are different. The Mahometans when they can afford it, use a portion of animal food with their rice, either beef, mutton, or fowl, dressed with spices. The Hindoos live chiefly on rice, which they eat, mixed with pulse, made savoury with butter and spices. The beverage of both Mahometans and Hindoos, is water. The Hindoos are either husbandmen, mechanics, or soldiers. The Mahometans are chiefly traders or soldiers; those who can afford to live without any avocation, and there are many of that description on the coast of Coromandel, who use no great exertion, either of body or mind, attain a great age: some I have known upwards of ninety; whereas, it is a very rare thing to see a Hindoo arrive at the age of seventy. Both men and women are old at fifty. They are subject, in the monsoon season, to the *cholera morbus*, and are frequently carried off in five or six hours, not having stamina to support the evacuations. The proportion of the Mahometans are as one to ten of the Hindoos, on the Coromandel coast.

*Letter to Dr. HUNTER of York, on the Subject of
Athletic Exercises.*

Coxwold, May 15th, 1806.

Dear Sir,

Since I had the pleasure of seeing you at York, I have conversed with some intelligent men on the subject of Sir John Sinclair's Letter to you.

I find the great object to be attained in either training men for a race, or a fighting cock for his battle, is to reduce any grossness or fullness of habit until muscular strength acquires its highest powers of exertion. Where the constitution is good, man suffers nothing from the means used for this purpose, unless he should, after his exertion, run from one extreme to another, in his manner of living. A gamecock suffers nothing from being turned down upon the dunghill, after he has won his battle. It is not thought prudent, however, to turn him abroad in a cold, severe season, when most of his feathers have been clipped off for the battle.

If man is trained to the race by regular and daily exercise, in walking or running long distances, and by having perspiration promoted constantly, by an unusual quantity of wearing apparel at all times; and after exercise, by having his skin well rubbed with warm flannel, and by immediately retiring to a bed, for a time, which is heavily loaded with blankets, &c. his food is to consist of broiled or roasted meat, very lightly done, and his beverage to be only the oldest ale, or strong beer, that can be pro-

cured. He is thought to be at an high state of training, when by holding up his hand against a lighted candle, the light appears to shine through it, and his muscles feel firm or rigid to the touch.

The game cock, after gentle evacuation, is gradually brought up to the desired point by an increased quantity of bread, eggs boiled hard, as for a salad, &c. He is considered ready to fight when his muscles, on his thigh particularly, are hard and rigid to the touch, and when his crest likewise becomes so, with an increased redness and shining.

I am, Dear Sir,

With much esteem,

Your obliged friend,

R. PEIRSON.

The subsequent Directions for training, are copied from a Pamphlet published under the Name of FEWTERELL, an itinerant Teacher of Pugilism, which is now become very scarce.

Previous to entering upon a pitched battle, you should have at least a fortnight's time to prepare yourself. Commence your preparation with an evening's bath, for the feet, legs, and small of the thighs, and afterwards, when quite cool, wash your loins with spring or pump water, not omitting your face,

face, hands, and arms. No soap is to be used in any of these bathings or washings. You must retire early to rest, upon a supper of runnet milk, or milk-pottage, and eat sparingly of bread, butter, or salt. The morning's beverage throughout the time should be runnet-whey, or hard white biscuits without seeds. Let your dinner be alternately stewed veal, (with rice) and well fed fowls, (with a melt or two in the former) boiled to a jelly. No tea must be taken in the afternoon, but instead thereof, a rusk and chocolate early in the evening, with supper as before. Your drink throughout the preparation should be red wine mingled with water. Use no porter, table beer, ales, or spiritous liquors, and drink no more than a glass or two after dinner. Salts and acid juices are to be avoided all the time. Lump sugar need not be prohibited if agreeing with your constitution; and, if the habit requires it, half a pint of claret may be mulled at night, with a good deal of lump sugar. No blood-letting or physic is commended, as the cooling of the body, and strengthening of the fluids cannot be effected if either of these coolers are used.

Retire to bed at nine; breakfast at seven; take rusk and wine at eleven, if not apt to inebriate or injure you, with a glass of jelly first; dine at one; take chocolate at four; sup at seven; and exercise yourself by any chearful amusement within doors, or walk out, previous to your going to bed.

Spend the morning in an early walk, of not more than a mile, first breaking your fast with a single gingerbread

gerbread nut, steeped (if not apt to inebriate) in Hollands. Return home slow, to avoid heating the body, and, in order to preserve it so, lay cool at night.

In the morning of fighting eat only one slice of bread, well toasted, without butter, or a hard white biscuit toasted, and if not too strong for the constitution, a pint of best red wine mulled, with a table-spoonful of brandy. This is to be taken an hour before the time of dressing; on the stage have your drink made of Hollands, bitters, fine china-orange juice, with some lump sugar, dissolved so as to make it to as palatable a strength as is agreeable.

Wind is strength and breath. This is lost by exercise too violent, and improved by frequent practice. A man is said to have good wind when his power of respiration and continuing the active part of a battle lasts long; and bad wind when he is soon disabled by the fatigue of personal exertion.

LETTER

TO

SIR JOHN SINCLAIR,

FROM

DR. A. P. BUCHAN,

ON THE MANNER OF TRAINING THE ANTIENT
ATHLETÆ.

SIR,

My attention having been greatly excited by the very ingenious observations and queries circulated by you, concerning the method of producing, what, perhaps, with propriety, may be denominated the athletic temperament; as well as by the interesting facts contained in the communications of your various correspondents, it occurred to me, that a comparison of the modern art of training, with that practised by the antients, who certainly paid no small attention to the means of augmenting corporeal vigour and activity, would tend to throw some farther light on this curious subject.

Among the antient inhabitants of Greece much pains were bestowed in improving the strength and activity of the human body, by due cultivation.

The

The gymnastic exercises, so termed from their being generally performed in a state of nudity, constituted among that people an important part of liberal education, and were regularly taught by masters in schools instituted for that express purpose. Pupils were exercised in the foot race, and in the art of leaping, and of throwing the *discus* or quoit, and the javelin. These were considered as the slighter species of exercise. The more serious consisted of the art of wrestling and of boxing. The combination of these two was termed *pancratium*, and seems to have been nearly equivalent to the modern English practice of boxing. When it is considered that the man who obtained a prize at the Olympic, the Pythian, or any of the public games, where candidates resorted from all the different states of Greece to contend in these exercises, not only acquired a distinction highly gratifying to himself, but which reflected honor on his family, and even on his country; it may be fairly inferred that every attention was paid to the previous education of the individuals, destined to excel in these exertions of muscular strength. Of the particular diet, and kinds of exercise in use among the Greeks previous to the solemn contest at the public games, I have not been fortunate enough to find any detailed account. Pausanias mentions that ten months previous to the solemn combat, the candidates took an oath in the temple of Jupiter, faithfully to comply with all the ancient laws and usages of the champions, and from that time till the period of the solemnity they were daily

daily and diligently exercised in whatever was requisite to produce excellence in the profession to which they had devoted themselves. A proof that the means they employed were admirably calculated to develope and improve all the corporeal powers of the human animal, is afforded by the statues of antiquity. The superiority of the Grecian sculpture, which the world has ever since attempted in vain to rival, was doubtless in great measure owing to the frequent opportunities the artists of those times enjoyed of beholding the human body brought to the highest pitch of perfection, which constant exercise in the open air, combined with appropriate regimen under a genial climate, had a natural tendency to produce.

To the individuals who excelled in some particular kinds of exercise, we learn from Pliny, that a statue was decreed as the appropriate reward; so that many of those figures which still remain, that of the *Discobolus*, for example, are in fact, individual portraits; and might almost without a hyperbolé, be called living examples of the perfection which the human form is capable of attaining.

The Romans seem to have derived their inclination for public combats, as they did many other of their arts, from the Greeks. But to engage personally in these contests, appears to have been considered as incompatible with the stern dignity and decorum of the republican character. They therefore hired persons to contend with each other for their amusement. From the victor receiving a prize or reward, they were
termed

termed *Athletæ*. But the warlike genius of the Roman people soon led them to require exhibitions of a more sanguinary nature. These were performed by the gladiators, who at first consisted of captives taken in war, who were compelled to fight with each other for the amusement of the populace. Afterwards persons voluntarily embraced that mode of obtaining a livelihood, and hired themselves for money to such as chose to court popularity by treating the public with an exhibition of this kind, of which they had become extremely fond. The gladiators fought with swords and other weapons, and their combats became mortal at the will of the spectators.

Notwithstanding the degradation of the exercises of the *palæstra* among the Romans from the rank of a liberal art, a certain degree of bodily strength and activity was indispensibly requisite to those by whom they continued to be practised. To acquire this it was requisite to comply with certain rules of regimen and exercise, concerning the nature of which a considerable share of sufficiently accurate information may still be gleaned.

Horace acquaints us with the kinds of exercise and of privations requisite to fit a person for contending for the prize, even in the least violent of the gymnastic exercises.

“ Qui studet optatam cursu contingere metam,
 Multa tulit, fecitque puer, sudavit et alsit,
 Abstinit venere et Baccho.”

Epictetus in alluding to the olympic games gives a somewhat more detailed account of the previous training

training the candidates were obliged to undergo. "I would conquer at the olympic games," he supposes his pupil to say, and then goes on to tell him ; " But then consider what precedes and follows, and then if it be for your advantage engage in the affair. You must conform to rules ; submit to a diet ; refrain from dainties ; exercise your body whether you chuse it or not, at a stated hour, in heat and cold ; you must drink no cold water ; nor sometimes even wine. In a word, you must give yourself up to your master, as to a physician. Then, in the combat you may be thrown into a ditch, dislocate your arm, turn your ankle, swallow abundance of dust ; and, after all, lose the victory.*"

Galen, the celebrated physician, was himself addicted to the exercises of the *palæstra* in his youth, and has left a detailed account of the pain he suffered in the reduction of his shoulder, which had been dislocated in a wrestling match. He afterwards became a gymnasiarch, or superintendant of a company of gladiators, and many remarks on their diet, exercises, health, and habits are to be found in his writings.

The diet of the *Athletæ*, in the more early ages consisted of dried figs, new cheese, and boiled grain. The antients appear to have derived a favourable opinion of the nutritious properties of figs, from observing that the persons who were appointed to guard the fig-gardens and vineyards, when the fruit was nearly ripe, and who fed upon hardly any thing else

* Carter's Epictetus, Book iii. chap. 15.

for a month or six weeks, during that period became remarkably fat. Geese were also fed on figs, in order to produce those enlarged livers which constituted a favourite delicacy of the Roman epicures. The fat and sleek appearance which the negroes, and indeed all the domestic animals in the West Indies, acquire during the season of boiling the sugar, notwithstanding the increased labour they undergo at that period, furnishes another proof of the nutritious properties of saccharine matter. It is a fact, perhaps not very generally known, that, though a dilute solution of sugar very frequently disorders the stomach, by running into the acetous fermentation, eaten in a dry or solid form sugar hardly ever disagrees.

The governor of a gymnasium, named Pythagoras, is said to have been the first who introduced the use of animal food as part of the athletic regimen, in consequence of having observed that it produced firmer flesh, and gave more real muscular strength. Of meat, the antient *Athletæ* were restricted to the use of pork. Galen asserts that pork contains more real nutriment than the flesh of any other animal which is used as food by man; this fact, he adds, is decidedly proved by the example of the *Athletæ*, who, if they lived but for one day on any other species of food, found their vigour manifestly impaired the next. The practice of the antients differs in this respect from that of the modern trainers, who seem universally to prefer the use of beef and mutton. Perhaps these animals were not brought to such perfection, as the food of man, in antient, as they have been

been in modern times. The ancients occasionally ate goats flesh, which was reckoned highly nutritious, but is said to have imparted a most foetid and disagreeable odour to the bodies of those who used it. The preparation of meat by roasting, or broiling, was universally preferred to boiling, in which process they conceived a great part of the nutritive juices of the meat were lost in the water. Bread made of the whole flour, and unfermented (*panis azymus*) was preferred to that prepared with leaven. I have myself heard a sea-faring man observe that he was always sensible of a diminution of muscular strength when he left off the use of biscuit, and ate common bread. For breakfast they took a little dry bread; but after the exercises of the day were over they always eat to satiety, and were sometimes even forced to gorge themselves with food. Milo of Crotona is said to have consumed fifty pounds of solid food in one day. Their drink was water or some species of thick sweet wine. But they were allowed a very small quantity of fluid. This dry diet, or *ξηροφαγία*, as it was termed, seems to have constituted an essential and important part of their regimen.

They were regularly exercised for many hours, daily, in every variety of muscular effort. Before engaging in the combat of the pancratiun, or wrestling and boxing, the skin was anointed either with oil, or with a mixture of oil and wax, termed *cero-ma*. This was supposed to prevent too great a loss by perspiration, as well as to supple the limbs. To
grapple

grapple a man whose skin was covered with an unctuous matter of this kind was impossible; they therefore rubbed themselves with the dust that covered the *palæstra*. When people of rank engaged in these contests, they made use of odoriferous unguents, and rubbed themselves with a peculiar kind of pulverable earth brought from a certain cavern near Puteoli, or what was reckoned still preferable, with a kind of dust named *haphè*, which was imported from Egypt.

When their exercises were finished they had recourse to their ἀποδραπια, or methods of refreshment. They were immersed in a tepid bath, where the perspiration and sordes were carefully removed from the surface of the body by the use of the strygil. The skin was then diligently rubbed dry, and again anointed with oil. If thirsty they were permitted to drink a small quantity of warm water*. They then took their princi-

* Nothing can afford a stronger proof of the attention paid by the ancients to the effects of exercise, than the prohibition of cold drink to persons who had been thus fatigued. When heated and exhausted by violent muscular exertion, it is not only much more safe, but even more refreshing, to take some warm fluid, as tea, into the stomach, than to drink any cold liquor. Immediate death has not seldom been the consequence of drinking a glass of cold water or beer, after having been heated and fatigued by dancing, or any other violent exercise. To those who may inadvertently be guilty of such imprudence, it may be well to know, that to swallow immediately a glass of brandy, or a tea-spoonful of laudanum, is the best means of counteracting its baneful consequences.

pal repast, after which they never used any exercise. They occasionally also went into the cold bath in the morning. They were permitted to sleep as many hours as they chose ; and great increase of vigour, as well as of bulk, was supposed to be derived from long continued and sound repose.

In order to empty the stomach previously to entering on this peculiar regimen, the ancients appear to have preferred the use of emetics to that of purgatives. Vomiting was produced by tickling the fauces with the finger, or by means of a feather, which was occasionally dipped in a solution of aloes. Stimulating glysters were occasionally administered. And one of these modes of evacuating the stomach or intestines was practised whenever the appetite appeared to flag.

Sexual intercourse was strictly prohibited ; and during the night plates of lead were worn on the loins, with a view to prevent venereal inclinations.

In order to exercise their patience, and accustom them to bear pain without flinching, they were occasionally flogged on the back, with the branches of a kind of rhododendron, till the blood flowed pretty plentifully. By diminishing the quantity of the circulating fluid, this rough kind of cupping was also considered as salutary, in obviating the tendency to plethora, to which they were peculiarly liable.

To be exercised in a pure salubrious air was deemed of essential importance. The principal schools of the Roman *Athletæ* were accordingly established at Capua and Ravenna, places, the air of which was reckoned

reckoned the most pure and healthy of any in Italy. They carried on their exercises in the open air, in all sorts of weather, the changes of which soon ceased to affect them.

You will probably agree with me in remarking a considerable degree of conformity between the ancient and the modern practice of training, in the kinds of food and drink preferred, in exercise, and in constant exposure to pure and free air; the last point I should consider as being of essential importance.

The ancients appear to have paid more attention to the state of the skin, by their use of the warm bath, and of friction. And the adoption of these means would probably be found useful by our modern practitioners. Nothing is more grateful after exertion, or tends more to alleviate fatigue than the tepid bath. I should imagine immersion in warm water the best mode of averting the injurious effects of a boxing match.

That this regimen and exercise would have the same effects in former times, as in the present day, cannot be doubted. The ancient *cæstus*, which consisted of leathern thongs, studded with knobbs of lead or copper, and contorted round the hand, must have added greatly to the force of a blow. These straps were indeed carried up to the elbow, by which the arm was in some measure protected. I doubt, however, whether any of our modern pugilists would venture to encounter such additional means of offence. By the physicians of antiquity the athletic temperament was by no means reckoned a healthy state

state of the constitution. Hippocrates considered this condition of extreme bodily health as peculiarly prone to disease. Galen, who, as has been already stated, was practically acquainted with the subject, asserts that besides the various accidents to which they were necessarily exposed in the course of their exercises, and combats, the *Athletæ* were liable to rupture of blood vessels in the lungs, to apoplexy, and to lethargic complaints. To obviate the last of which they were permitted occasionally to have intercourse with the female sex. He says they rarely preserved their vigour so as to be fit to appear in public for a longer period than five years; and he particularly mentions that they were considered as a short-lived race of men. These circumstances are perhaps chiefly to be attributed to their moral conduct. For when not under a course of discipline to fit them for the combat, they indulged themselves in every kind of drunkenness and debauchery; so that by all the authors of antiquity who mention them, their manners are reprobated as being extremely dissolute.

Although that state of extreme fulness of blood and high tension of fibre, which is calculated to enable a man to exert his full strength for a short period may not be that condition of the body most consistent with permanent health, or with duration of life, yet I think you have great merit in drawing the attention of the public to the effects of air, exercise, and diet on the human frame, and demonstrating by such irrefragable examples, the extraordinary alteration which these powerful agents, under due management,

nagement, are capable of operating on the body of man.

The antients were by no means unacquainted with, or inattentive to these instruments of medicine, although modern practitioners appear to have no idea of removing disease or restoring health, but by pouring drugs into the stomach. Herodicus is said to have been the first who applied the exercises and regimen of the gymnasium to the removal of disease or the maintenance of health. Among the Romans, Asclepeiades carried this so far, that he is said by Celsus almost to have banished the use of internal remedies from his practice. He was the inventor of pensile beds, which were used to induce sleep, and of various other modes of exercise and gestation, and rose to great eminence as a physician at Rome. In his own person he afforded an excellent example of the wisdom of his rules and the propriety of his regimen. Pliny tells us that in early life, he made a public profession that he would agree to forfeit all pretensions to the name of a physician, should he ever suffer from sickness, or die but of old age; and what is more extraordinary he fulfilled his promise, for he lived upwards of a century, and at last was killed by a fall down stairs.

As some of your queries seem intended to obtain information concerning the effects of regimen in removing certain diseased states of the constitution, I beg leave to point out a few examples which have been sanctioned by experience.

Several instances have come within my own knowledge,

ledge, of individuals who, after having suffered severely from repeated attacks of gout, have completely eradicated that painful distemper, by an entire abstinence from fermented and spirituous liquors of all kinds, and have by the same means recovered a much greater share of health and vigour than they could expect.

The effects of the *diæta aquea*, or living wholly on pure water, cooled by ice, in alleviating the pain of cancer, and in several cases even of its effecting a complete cure of that painful disease, which are narrated by Mr. POUTEAU *, and which have been corroborated by the experience of that respectable surgeon, Mr. J. PEARSON, have, till very lately at least, been unaccountably neglected in this country. It is a singular fact, that after two or three days the desire for solid food entirely subsided, and the stomach appeared completely satisfied when filled with the aqueous fluid, of which four or five pints were drunk daily. The pain of the sore was soon diminished, accompanied with a favourable appearance of the discharge. It is natural to suppose that a person would submit to almost any privation that promised to alleviate the anguish of so distressing a complaint; but those familiar with the manners of the diseased, know how much more readily a sick person will swallow the most nauseous drugs, than agree, to abstain from any of their habitual indulgencies.

* See Oeuvres Posthumes de M. POUTEAU, Docteur en Médecine et Chirurgien en Chef de l'Hôtel-Dieu de Lyon.—Paris, 1783.

The example of CORNARO is the more deserving of attention and imitation, because he adopted a peculiar regimen, in order to effect a specific purpose, in which he completely succeeded. At forty years of age, he laboured under such a complication of disorders, that his life was despaired of. By strictly adhering to a measured diet, he not only perfectly recovered his health, but prolonged his life to more than a hundred years.

The celebrated Wesley is another instance of a delicate constitution, by strict temperance, regular exercise, and early rising, protracting its existence to nearly ninety years.

Mr. Wood, the miller of Billericay, in Essex, whose case is stated in the Transactions of the College of Physicians, London, by Sir George Baker, affords an example of the possibility of reducing, by means of diet, a degree of corpulency, such as to render life a burthen, to a moderate bulk, accompanied with the return of health and strength. The miller's diet consisted of a simple pudding, made by boiling coarse flour in water, without salt. Of this he consumed about three pounds in twenty-four hours, and took no fluid whatever, not even water. On this he lived in perfect health for many years, went through a great deal of exercise in the open air, and was able to carry five hundred pounds weight, which was more than he could lift in his youth when he ate animal food, and drank freely of ale. A gentleman who was fond of good living, and found himself becoming more corpulent than he thought convenient, having heard of the salutary effects

effects of Mr. Wood's regimen, ordered his cook to prepare the miller's pudding, which he ate with great regularity every day after his usual dinner. However ridiculous such conduct may appear, it is not very uncommon. People should be very cautious how they make any partial change in their diet or habits of living, without adapting the rest to it. Were a person, for example, to adopt so much of the athletic regimen as consists in eating to satiety of animal food twice a day, and drinking plentifully of malt-liquor, without augmenting their exercise in the same proportion, undoubtedly they would soon become diseased. Lord Bacon has left us the following excellent precept on this point.—“Beware,” says he, “of sudden change in any great point of diet, and if necessity enforce it, fit the rest to it. For it is a secret both in nature and state, that it is safer to change many things than one.”

The case of Doctor Taylor of Croydon, narrated by Dr. Cheyne, is an instance of the power of regimen in eradicating one of the most terrible diseases incident to human nature. That gentleman had for many years been afflicted with the epilepsy to such a degree, as frequently to fall from his horse in the course of his business, and remain insensible on the road till picked up by the next passenger. Having observed that the lighter his food the less frequently did his fits recur, he confined himself wholly to bread and milk. This diet occasioning flatulence, he restricted himself to milk alone, of which he took about two quarts per day. Under
this

this regimen he completely recovered his health and strength, so as to be able to play at cricket for many hours together, with hardly any perspiration. During fourteen years he experienced no recurrence of his fits, and at length died of a pleurisy, occasioned by cold caught from sleeping in a damp bed. I had once an opportunity of seeing this regimen adopted in a deplorable case of the same malady. The disease was not indeed cured, though much mitigated, and during the year it was persisted in, the patient considerably recovered his health and strength.

When it is considered that persons most conspicuous for elegance of person, as well as for acuteness of intellect, are peculiarly liable to become the victims of the sure though slow-moving dart of phthisis pulmonalis, it becomes a very desirable object to possess some means of opposing the depredations of that scourge of our island. To effect this purpose it is requisite to be able to detect the earliest advances of that insidious disease. To discover any remedy that will remove tubercles, or cure ulceration of the lungs, if actually present, judging from the analogy of other diseases, is hardly to be expected. Without quibbling about the term hereditary disease, no doubt can remain in the mind of any man of observation, that children are not only prone to the diseases of their parents, but are even peculiarly liable to the diseases of that parent to whom they bear the closest personal resemblance. That children particularly resemble their parents in the structure and formation of their nails, has not
been

been so generally remarked ; and a child will very generally be found to partake most of the constitution, and consequently to be peculiarly liable to the diseases of the progenitor to whom it has the greatest similarity in this particular part of the body. A certain conformation of the nails affords also a strong indication of the disposition to phthisis. In persons of the consumptive habit, the nails are in general large, long, of a fine texture, and curved over the ends of the fingers, the last joint of which appears is if enlarged or thickened. When this peculiar structure of the termination of the superior extremities is found combined with fine sound teeth, a flaccid skin and high shoulders, little doubt can remain of the existence of disposition to phthisis, whether the individual be of a fair or of a dark complexion ; and if we find that any hereditary taint is present in either of the parents, it is almost certain that their offspring will ultimately become the victims of this disease.

Of the effects of a regimen of the farinacea, combined with milk and fruits, in subduing the early attacks of phthisis many examples are recorded ; and there would probably be many more, were an appropriate regimen adopted rather with a view to prevent than to cure this disease. Hence the utility of noting every mark that can lead to the detection of a tendency to this disease, and the consequent adoption of a plan calculated to prevent its earliest attacks.

Some experience has induced me to be of opinion
that

that more may be done to counteract the predisposition to this disease than has hitherto been effected. The surface of the lungs and that of the skin are both secreting organs, the functions of which mutually compensate each other; a languid and inert condition of the skin is necessarily attended with a diminution of cutaneous perspiration, to make up for which a larger share endeavours to escape by the lungs, and this increased effort may well be supposed to lay the foundation for disease. This hypothesis is supported by the well-known facts that sailors, ploughmen, butchers, and all persons whose occupations are carried on in the open air, and whose perspiration is therefore free and copious, enjoy a remarkable exemption from pulmonary complaints; on the contrary, two thirds of the working tailors of London, taking them as an example of the sedentary class of artificers, are believed to die of pulmonary consumption. Let us then endeavour to remove this inert condition of the skin, not by internal sudorific medicines, which would only relax it more, nor by keeping the body constantly bathed in an atmosphere of its own perspiration by casing it in flannel. Rather by daily exposure to the air bath, during which the surface of the body should be rubbed with a hard flesh brush, either by the hands of the patient, or by those of an assistant till the whole skin glows. From a sedulous attention to this practice, which when regularly persisted in becomes very grateful, combined with a light dry diet, and unremitted exercise in the open air, I have seen such an alteration produced

produced in the constitution, as leads me to hope that much may be effected in repelling the attacks of this disease, if the proper means be sufficiently early employed.

Should this sketch of the mode of training the ancient *Athletæ*, which suggested these few hints concerning the influence of diet, air, and exercise, in counteracting certain diseased states of the constitution, coincide with your plan of diffusing a more general knowledge of the means of preserving health, and preventing disease, I trust you will accept of them as a mark of my respect for that wish to ameliorate the condition of mankind, which appears on this occasion to have directed your efforts.

I am, Sir,

Your most obedient servant,

A. P. BUCHAN.

Percy Street, London,
20 March, 1806.



P. S. The preceding observations being intended to indicate the physical changes possible to be effected in the human constitution, by a peculiar course of diet and exercise, combined with exposure to a pure air, persisted in, during a time given, all remarks on the moral effects of pugilistic exhibitions, to which such a course of training, forms a necessary prelude, have been intentionally avoided. This subject has lately been discussed with equal acuteness and pro-

propriety by Dr. BARDSLEY, in "A Dissertation on the Use and Abuse of popular Sports and Exercises," published in the last volume of the Memoirs of a Literary and Philosophical Society at Manchester, which, had it fallen into my hands before this account of the mode of training the antient *Athletæ* was transmitted to you, would have saved me considerable trouble. The reader will there find the different effects produced on the public mind by the exhibitions of human prowess, displayed in the practice of boxing, well discriminated from the consequences of committing acts of cruelty on the inferior animals, such as bull-baiting, throwing at cocks, and other execrable practices of a similar kind, which have been most improperly denominated sports. Ferocity of manners, and brutality of conduct, are the invariable consequences of indulging a propensity to witness such exhibitions. In England, where the art of boxing is particularly exercised, the number of persons who fall sacrifices to personal quarrels, or become the victims of resentment, are few indeed; whereas, it has been calculated, that at Rome a thousand persons are annually murdered by the stiletto of the assassin, and the proportion is probably not less in Spain and Portugal. In the southern counties of England, where the mode of deciding private quarrels among the common people, by an appeal to manual combat, is peculiarly prevalent, instances of their terminating in death are very rare. In the northern counties, on the contrary, where, when men fight, they take every unfair advantage, the loss of life is

by

by no means uncommon, and the verdicts of manslaughter occur so frequently, as to have repeatedly excited the indignation of the judges. It is even stated, that since the practice of fair boxing has been, in some measure introduced into the northern parts of this country, by the example of the itinerant teachers of the pugilistic art, instances of murder have become less frequent.

The pain inflicted and suffered by the persons engaged in these contests have caused them to be stigmatised by many humane persons, as cruel. But to judge of the feelings of the combatants by those of the spectators, is a very inadequate criterion. It is an acknowledged physiological truth, that the simultaneous actions of voluntary exertion, and of sensation, are in great measure incompatible with each other. Hence the utility of the bullet in the soldier's mouth, who is suffering punishment: by strongly exerting the muscles of mastication on this unyielding substance he diminishes the sensation of pain. Even our immortal bard appears to have been acquainted with this fact, when he makes Henry the Fifth desire his soldiers, previous to mounting the deadly breach, to

“ Stiffen the sinews, summon up the blood;
To set the teeth, and stretch the nostril wide,
Hold hard the breath, and bend up every spirit,
To his full height.”

Such is the condition of persons engaged in a boxing match. And many who can contemplate the gallantry and spirit displayed in a contest of
this

this kind, with considerable satisfaction, would shrink with abhorrence from the spectacle of a man beaten in like manner, were he at the same time deprived of the power of resistance.

It is also matter of common observation, that a man, in possession of a robust and vigorous constitution, suffers much less pain from a certain degree of injury than a person in a more feeble state of health. Carry this a little farther, and we find a delicate lady, whose flaccid muscles hardly suffice to support a debilitated frame from one chamber to another, yet highly susceptible of pain from the slightest external injury, and suffering almost annihilation at the sudden clapping of a door. It would seem, therefore, as if the force and irritability of the muscles, and the susceptibility of the nerves were in the inverse ratio of each other. The effect of a course of training appears to be to augment the quantity, and irritability of the muscular fibre, and at the same time, to diminish the morbid sensibility of the nervous system. And I think it is advancing a step in physiological knowledge, to have ascertained the means of augmenting or diminishing these opposite states of the living body.

It might indeed, be desirable, that the persons who engage in these public contests were less influenced by pecuniary motives, and that there was less of the spirit of gambling connected with them. A rigid adherence to the rules of the combat, which chiefly consists in abstaining from taking any unfair advantage of an antagonist, is particularly attended
to

to in a regular boxing match, and by such examples this generous feeling is supported and diffused among the mass of the people. Were the victor not rewarded by some prize, or testimony, of his superiority, the practice would probably soon fall into disuse.

Dr. Bardsley has proposed, in order to prevent injuries, that these combats should be carried on in mufflers, or stuffed gloves. The preparatory exercises, it is well known, are always managed in this manner. But an important part of the practice of boxing consists in that cool and steady courage which enables a man to endure a certain degree of corporeal suffering with patience; and in a command of temper, which preserves the presence of mind, undisturbed, amid pain and danger. This cool intrepidity constitutes the characteristic feature of British bravery; and whatever may be the evils attendant on prize-fighting, they are more than compensated, if it be allowed that such exhibitions tend to diffuse and support a spirit of this kind, among the inhabitants of the British Isles.

CHAP. II.

Queries concerning the Means used to reduce the Weight of Horse-Jockies, and the General Effect on their Health; and on the Methods employed in Training Race-Horses, so as to augment their Strength, Wind, and Speed.

1. JOCKIES.

1. **WHAT** is the process used in training them, and reducing their weight?

2. What effect has it upon their health and strength?

3. What effect has it upon their mind, in regard to courage, quickness, &c.

4. How long do these effects continue?

5. After being reduced, do they quickly get fat again, or do they continue long in the state to which they were brought?

6. Are jockies, accustomed to be thus treated, healthy and long lived?

2. RUNNING HORSES.

1. What are the principal objects to be attended to in regard to running horses? Do their perfections depend upon parentage, and whether most upon the male or the female? Is it necessary that
the

the mare should have gone her full time, to bring a perfect foal? Is the gradual growth of the foal essential? Is there a great difference, in regard to natural constitution, between horses of the same parentage? What kind of form is in general preferred? Do you prefer great or small bones? Which sex is preferable for speed, and which for strength?

2. What is the best age for beginning to train horses for the turf? Are they first put upon grass? What is the effect of soft meat? When should they be put on hard meat? What are the effects thereof? Is it necessary to purge them frequently? Have the purges any tendency to weaken them? What food is reckoned the most nourishing? How often are they fed? What drinks are given them, and how often? Whether hot or cold? Is it necessary to keep their skin perfectly clean, and how? Is it necessary to make them perspire much? What exercise is given them? How is the training completed?

3. After the training is completed, can the perfections thereby obtained be easily kept up? Does the process effect merely a temporary change, or does it last during life? Are running horses as long lived as others, or do they soon wear out?

I take this opportunity to acknowledge my obligation to Sir T. CHARLES BUNBURY for the readiness with which he facilitated my inquiries concerning this part of the subject, by transmitting copies of the printed queries to persons resident at Newmarket.

market : from one of whom the following letter, containing particulars truly characteristic of the class of persons mentioned in it, was transmitted to that respectable gentleman, by Mr. Rickword.

To Sir T. C. BUNBURY, M. P.

SIR CHARLES,

The small Pamphlet you directed to be sent to me, from Mr. Weatherby, I received about a week since ; I have perused it, with as much attention as I could give it, and proceed, to say something respecting the *Questions* asked by the author of it ; in so doing, I apprehend that I am fulfilling your intentions, in sending it to me, as I was given to understand you wished to have my opinion respecting *them*.

I shall briefly make my observations, as follows.—The *object* desired, by the author of this (the *principal*, I mean) appears to be, to *learn* the *method* resorted to, in the training of men, horses, &c. to extraordinary feats of muscular exertion, and to obtain the opinions of other men, on the—why, and wherefore ;—when such methods are used ;—such, and such effects should be produced. The writer of the pamphlet in question, is far better acquainted with the causes and effects produced by air, exercise, and feeding in animal bodies, than the persons to whom he refers for information, excepting the mechanical part of training (which is obtained by practice,

practice, by those who usually train men or horses or who train themselves) they possess no information whatever. To procure a knowledge of the manner of wasting with the least eventual expence to the system, and to learn the effect produced upon the mind and the body during the progress, &c. I solicited information from two people of this town; the one, an old jockey (now a training groom) and the other, one of the first-rate jockeys of the present day: aware of my men, I went on my enquiry with the greatest caution, that no offence, by any thing abrupt, should be conceived. The jockey had read the book; on requesting the favour of his opinion, as to some of the questions it contained, I met with unwilling, surly, indeed rude replies; in short, I found both one and the other much indisposed to afford any information whatever; and the final result and answer from both was; “That the man who wrote the book, and asked (*alias* *ask’d*) the questions might be bl—t—d; let him train himself, and be d—d, if he wanted to know any thing; from them he would know nothing.” I mention this, to shew the description of some of the people and their dispositions, from whom this author expects, that we should receive information. I have collected from elder John Arnall and others, that physic of no kind is used now, so common as it used to be, either in wasting men to ride, or in training them to pugilistic engagements, or extraordinary muscular exertions of any kind. The number of questions put by this author might be compressed into a very

few ; like summoning and capitulating commanders of armed men, many of the articles are said to be answered in the foregoing, number so and so, as the numerous questions (made use of in this pamphlet) are (in a great degree) by the following general observations, the good effects of air, exercise, and aliment, to animal bodies, to the attainment of health, is tolerably well known. No general rule can be laid down as to the mode of feeding ; the quantity of exercise, or the time required, to bring either man or horse to perform the utmost he is capable of doing : the conformation, and idiosyncrasy of the body of each animal, the trainer should make himself acquainted with, men and horses differ in constitutions ; as in dispositions. The great art amongst trainers is, *or should be*, to discover what quantity of exercise, &c. a horse will take to bring him to, and keep him at his best. As to physic, it is my opinion, that it is much too generally in use amongst racing horses in particular ; but, upon that subject, I have more to say than is convenient for me to advance at present. More depends, far more, on exercise than is generally believed, even at this period, though the benefit is pretty well known and admitted ; yet, by no means sufficiently ; pure air, proper exercise, good oats and hay, with thorough grooming, would bring horses to the starting post, far better able and in condition for running than they usually are brought, in consequence of the *too common* use of physic, and the quantity given at each dose. I am persuaded that alterative medicine would answer a better

better purpose than stronger physic, in most cases, where, even it is exhibited judiciously; I do not say that physic is at no time proper, there are situations when it is highly necessary; but I contend against the frequency of its exhibition, and the quantity exhibited; I do so, thoroughly convinced of its laying the foundation of some diseases, and rendering the animal incapable of contending against any other, with which he might unfortunately be attacked. As to the food used in the training of men, I should consider that which affords the most nutriment, occupying the least space, and digesting easy, to be the most proper, and likely to give the greatest assistance to the other requisites, in training them to perform any feats, requiring extraordinary exertion of the muscular system; this attended to, with the benefit of free respiration (without which, nothing great can be performed, either by man, horse, or other animal) will admit of astonishing and wonderful powers and strength, either in wrestling, pugilism, walking, running, &c. &c.

As far as relates to strength and wind, the foregoing observations apply to fowl, as well as other animals. Fighting of all kinds I am an enemy to; cocking I never see, nor do I like to hear of it. The foregoing observations are hastily written, but rest on the best foundation. I have the honour to subscribe myself, Sir Charles,

Your very obedient,

Obliged, and most humble servant,

W. S. RICKWORD.

The following Observations were received from Mr. SANDEVIR, an eminent Surgeon, residing at Newmarket.

W. Sandevir presents his respectful compliments, and hopes Sir John Sinclair will excuse his not having answered his favour of the 7th instant, he not having been able to obtain sufficient information to do it earlier, and the following Answers are the best he is now able to give to the Queries Sir John has been pleased to favour him with.

Q. 1. How long the training of jockies generally continues?

A. With those in high repute as riders, in a greater or less degree, from about three weeks before Easter to the end of October; but a week or ten days are quite sufficient for a rider to reduce himself from the weight he is naturally of to sometimes a stone and a half below it.

Q. 2. What food do they live on, both solid and liquid, and what quantities are allowed them of each?

A. For breakfast a small piece of bread and butter, with tea, in moderation. Dinner is taken in a very sparing way; a very small piece of pudding, and less meat; and when fish is to be obtained, neither one or the other are allowed; wine and water is their usual beverage, in the proportion of one part wine to two of water. Tea in the afternoon,

noon, with little or no bread and butter, and no supper.

Q. 3. What exercise do they get, and what hours of rest?

A. After breakfast, having sufficiently loaded themselves with clothes, that is, five or six waistcoats, two coats, and as many pair of breeches, a severe walk is taken, from ten to fifteen or sixteen miles; after their return home dry clothes are substituted for them that are made very wet and uncomfortable by sweat, and if much fatigued some of them will lie down for an hour before dinner, after which no severe exercise is taken, but the remaining part of the day is spent in that way that may be most agreeable to themselves; they generally go to bed by nine o'clock, and continue there till six or seven the next morning.

Q. 4. Are they purged, and what purges, or other medicines are given them?

A. Some of them that do not like excessive walking have recourse to purgative medicines, two ounces of Glauber-salts is the usual dose, and it is very seldom that any other medicine is had recourse to.

Q. 4. Would Mr. Sandevir recommend a similar process to reduce corpulency in other people, whether male or female?

A. W. Sandevir would certainly recommend a similar process to reduce corpulency in either sex, as from experience he perceives that the constitution does not appear to be injured by it, but he is apprehensive that hardly any person could be prevailed upon

upon to submit to such severe discipline that had not been inured to it from his infancy.

The only additional information W. S. has the power to communicate is, that John Arnall, when rider to His Royal Highness the Prince of Wales, was desired to reduce himself as much as he possibly could, to enable him to ride some favourite horse, without his carrying more weight than was agreed upon, in consequence of which he abstained from animal, and even farinaceous food, for eight succeeding days, and the only substitute was now and then a piece of apple; he was not injured by it at the time, and is now in good health; added to which, Dennis Fitzpatrick, a person at this time continually employed as a rider, declares that he is less fatigued by riding, and has more strength to contend with a determined horse, in a severe race, when moderately reduced, than when allowed to live as he pleased, although he never weighs more than nine stone, and frequently has reduced himself to seven stone, seven pounds.

Newmarket, 28th June, 1805.

The subsequent Answers were received from another Person.

JOCKIES.

Q. 1. What is the process used in training them, and reducing their weight?

A. Ab-

A. Abstinence ; sweating in consequence of additional clothing, and long continued walking.

Q. 2. What effect has it upon their health and strength?

A. Neither the one nor the other are impaired when the above are had recourse to in moderation ; but when carried to excess both of course must be more or less affected.

Q. 3. What effect has it upon their minds, in regard to courage, quickness, &c.

A. When much reduced, peevish and irritable ; but perhaps not less courageous than usual.

Q. 4. How long do these effects continue ?

A. Till the cause is removed ?

Q. 4. After being reduced, do they quickly get fat again, or do they continue long in the state to which they were brought ?

A. Many of them are naturally lean, but Buckle, the great rider, after severe wasting has gained nine pounds in eighteen hours.

Q. 6. Are jockies, accustomed to be thus treated, healthy and long lived ?

A. Their health does not appear to be injured by wasting, and the continuance of life on the contrary does not appear to be effected by it.

The following Replies were received from Mr. ROBINSON, a celebrated Trainer at Newmarket.

Q. 1. What are principal objects to be attended to, in regard to running-horses?

A. The perfections of a race-horse consists in his wind, which is innate in their breed, and degenerates when mixed or crossed with other horses. It is observed sometimes the other species of horses go nearly, or quite as fast as the slower kind of race-horse, but they very soon tire for want of wind, whilst the running-horse breed has the peculiar merit, from his wind, of bearing fatigue so much better than any other breed of horses.

Q. 2. Do their perfections depend upon parentage; and whether most upon the male or female?

A. Upon the parentage certainly, and on the female most.

Q. 3. Is it necessary that the mare should have gone her full time to bring a perfect foal?

A. I should think yes.

Q. 4. Is the gradual growth of the foal essential?

Q. Certainly. If neglected with corn they grow lean in their muscles, and want formation, and do not grow gradually.

Q. 5. Is there a great difference in regard to natural constitution between horses of the same parentage?

A. Yes.

Q. 6. What kind of form is in general preferred?

A. Good

A. Good size, with strength, and symmetry of form is essential to the running-horse; but the most essential is active going, and good wind. With regard to form he should be broad, deep, and have great declivity in his shoulders, his quarters long, his thighs let down very low, the hocks stand far behind and from him, thence downwards to the next joint very short, &c. &c

Q. 7. Do you prefer great or small bones?

A. Great bones, certainly.

Q. 8. Which sex is preferable for speed, and which for strength?

A. There is no preference for speed. The horse has generally the most strength, and bears fatigue better than the other sex.

Q. 9. What is the best age for beginning to train horses for the turf?

A. At two years and a half old.

Q. 10. Are they first put on grass?

A. They are kept in a state of nature from the time of being foaled, to the time of being broke, in grass fields; well fed with corn as soon as they will eat it; with hay where grass is scarce.

Q. 11. What is the effect of soft meal?

A. It is cooling, but from its laxative qualities is injurious, when horses are in hurrying work.

Q. 12. When should they be put on hard meat?

A. Always, as per answer to 10th question.

Q. 13. What are the effects thereof?

A. Hard meat, with a due proportion of exercise, gives health, agility, and strength to bear fatigue.

Q. 14.

Q. 14. Is it necessary to purge them frequently?

A. We purge race-horses two or three times a year, each course perhaps three doses, preparatory to their getting into training exercise.

Q. 15. Have the purges any tendency to weaken them?

A. We use *mild* physic only, which has no tendency to weaken; on the contrary, it afterwards makes them thrifty and healthful.

Q. 16. What food is reckoned the most nourishing?

A. Oats is the most nourishing provender we give to horses.

Q. 17. How often are they fed?

A. Three times a day, and as much each time as they can eat with appetite.

Q. 18. What drinks are given them, and how often?

A. I recommend soft water at least twice a day.

Q. 19. Whether hot or cold?

A. Always cold, excepting during physic or illness.

Q. 20. Is it necessary to keep their skin perfectly clean, and how?

A. Yes, when in the stable; the friction of rubbing with brush and curry-comb, both cleans and braces the skin and muscles.

Q. 21. Is it necessary to make them perspire much?

A. Yes, occasionally; the custom is to sweat once a week or so, by putting a few extra clothes on, to
canter

canter gently five or six miles distance, according to their age, and other circumstances. Perspiration promotes health and strength, &c.

Q. 22. What exercise is given them ?

A. We take them out to exercise twice a day; a mile or so in a gallop they take before water; afterwards a short or long canter, as circumstances and their constitution require.

Q. 23. How is the training completed?

A. By good keep, with a proper proportion of work to attain wind, condition is attained, and enables horses to bear fatigue.

Q. 24. After the training is completed, can the perfections obtained thereby be easily kept up?

A. For two or three months only.

Q. 25. Does the process effect merely a temporary change, or does it last during life?

A. A temporary change only.

Q. 26. Are running-horses as long lived as others, or do they soon wear out?

A. They live certainly full as long as others; nor do they wear out sooner than other horses; on the contrary, bear fatigue much better more than others.

Newmarket, May 5th, 1805.

Mr. Robson has sought the first quiet five minutes to answer Sir John Sinclair's questions; but laments the want of a personal conversation to enable him to state more *satisfactorily* the above, or any other questions, Sir John might desire.

Observations on the Training of Pugilists, &c. by
Mr. HOLCROFT.

“ Ascetics are a proof, not of the length of life,
 “ which temperance insures, but of the premature
 old age which abstinence brings.” Page 3.

Remarks. As far as my experience goes, one principal rule for preserving good health is, neither to load the stomach, nor to eat too little, not to fast too long, nor to eat too often, but carefully to be guilty of no excess, either way.

“ The old man should be quiet, sedate, self-indulgent ; should have long sleep, delicate, rich wines,
 “ and agreeable temperature ; little labour, and a
 “ cheerful mind.” Page 4.

Remark. Of the goodness of this advice I strongly doubt ; it is good for those who think their lives virtually ended, and wish to live agreeably while they can ; being then willing to die. Age is a relative word ; one man is older at forty than another at a hundred ; the causes of such a difference should be enquired into. Were the causes in original construction ? or in the after habits of life ? The latter appears the most probable. The experiments which I have made upon myself, though they never have been followed with perseverance and consistency, tend to prove that exercise, at every period of life, is greatly advantageous, provided it be not taken to excess ; it seems as if it might be gradually increased to what would be thought a wonderful degree, even in old age ; and that with its increase the
 faculties

faculties strengthen, and an approach to youth returns. I have found that a free play of the lungs was a certain sign of good health.

“What is the process used in training jockies, and reducing their weight?” Page 11.

Remark. In my youth I lived at Newmarket. John Watson, our groom, was a man of good understanding; he was employed in the double capacity of training the horses, and riding them, but was considered somewhat too large of bone and heavy. It was the custom at Newmarket for the jockies to wear several waistcoats, and generally of flannel, or woollen. When John Watson wished to reduce his weight, he increased the number of these waistcoats, loaded himself with cloaths, ate little, rose in the morning and took a severe walk, by which he threw himself into a strong perspiration, came home, and immediately went into a warm bed, to continue the effects he had produced, and, as I was then told, sometimes slept between two feather-beds. I remember having heard it said, on one occasion, that he had to reduce himself two stone, and that the stable-boys considered it as a dangerous experiment. When I passed through Newmarket in 1797, I was informed he had died at a very advanced age.

“*Running-horses, and their training.*” Page 11.

Remark. When the racing season is over, these horses have most of them green meat for some time, and repose from their severe exercise; their high-spirit and vices soon begin to shew themselves, much

to the terror of timid boys. Having fed grossly for a time, they are regularly purged, I forget how often, but I believe every other day, for three doses; and that these purgations are repeated, at intervals, three times. They then gradually begin to increase their exercise, so that, early in the spring, they remain out of the stable about eight hours in four-and-twenty, and take what are called four brushing gallops, two in the morning's exercise and two in the afternoon's; a brushing gallop means a gallop of nearly a mile, beginning at a moderate rate, increasing, and ending full speed. They are stinted in their water; the horse that blows the hardest, the most; their hay and oats are of the best quality; the hay is long in the stalk, and the seed shaken out; the oats are thrashed in a sack, and winnowed, and every care is taken to keep the horses from chaff and dross of every kind. After feeding, their heads are muzzled. They are not allowed above six hours in the night; for they are supped up at nine, and out again at three in the morning; but they have the intervening hours in the day, between their morning and evening exercise. When they become wet, from the accidents of weather, or other things, they are carefully rubbed till dry. Each horse has a boy for the performance of all these particulars; they are occasionally sweated, I forget how often; that is, they are heavily cloathed, galloped nearly full speed for four miles, relieved from their violent perspiration, first by wooden scrapers, then by rubbing

rubbing them till they are perfectly dry, and after a little gentle exercise, are taken home.

I have spoken to the best of my memory of things that happened at least six and forty years ago, and concerning which, when I quitted Newmarket, I never imagined I should be more questioned. The skins of the horses are kept perfectly and peculiarly clean ; severe perspiration is thought absolutely necessary. I see no reason to suppose that their lives are shortened ; some of them live to a great age. Eclipse, I think, died above thirty.

CHAP. III.

Queries relative to the Breeding and Feeding of Game-Cocks.

1. DOES the superiority of game-cocks depend upon parentage? Which is of most importance, the male or the female? Is it of any consequence that the cock should arrive rather gradually at maturity? Is there a great difference, in point of strength and constitution, in game-cocks of the same parentage? Do you prefer great or small bones?

2. When do you begin to feed the young cocks? What diet and drink do you give them, and what is the process by which they are brought to the greatest possible height of strength and spirit?

3. When the game-cocks are thus trained, how long do the effects thereof last? Are they temporary or permanent? Do game-cocks thus trained live shorter or longer than others of the same species?

4. What drugs are given to fighting-cocks immediately before the main begins? Is it not usual, by giving them saffron, (or some drug, which has the same effect with opium, as used among the Janisaries, or brandy among the French soldiery), to excite an unnatural and short-lived courage? What are the effects of such drugs? and how do they manage

manage the feeding up to this point, so as to take advantage of this momentary excitement?

*The following interesting Letter was received from
a Clergyman.*

West Ham, March 28th, 1805.

DEAR SIR,

I perceive that only on one part of your well-directed Queries I am able to give you satisfaction, and that is, on what you would least expect from a D. D. and the sober vicar of a country parish: the subject to which I allude is cock-fighting. At the period of my childhood, when I ran wild, from ten to fifteen, I was a great cock-fighter, and though it is many years ago, I find my memory perfectly competent to even the minute narration of every fact.

But before I proceed, I will intrude a remark or two upon your preliminary observations. In all the theoretical part I completely coincide: indeed, I was pleased to find so much harmony between your sentiments and those I lately transmitted to you, without the possibility of any previous concert between us.

I do not even question your facts, but seem to differ a little with respect to some of the inferences. With respect to the South Sea islanders, and the difference between them and the English sailors, I doubt whether there was any superiority in the training of the former, which gave them the advantage. An English sailor is, perhaps the very perfect-

F

tage.

tion of agility in his own way*. I do not know that the human powers can go beyond it, in some instances, that I have seen with my own eyes; yet an English sailor, though he could probably *climb* a rope better, could not *dance* upon one, as I have seen the people at Sadler's Wells. The superiority, therefore, of the South Sea Indians in wrestling, boxing, and rowing, I attribute merely to *practice*. It was also in their *own way* that Cooke's sailors contended with them. In a fair boxing-match, I have not a doubt but Mendoza or Humphries would have triumphed over at least twenty of them in succession. By the way, from what I have learned of amateurs, respecting these pugilists, no persons can lead more dissolute lives, except in the article of exercise. With this exception, that those among them

* An officer of a frigate who had been at the Sandwich Islands has declared, that our sailors stood no chance in boxing with the natives, who fight precisely in the English manner. A quarter-master, a very stout man, and a skilful boxer, indignant at seeing his companions knocked about with so little ceremony, determined to try a round or two with one of the stoutest of the natives, although strongly dissuaded from the attempt by his officers. The blood of the native islander being warmed by the opposition of a few minutes, he broke through all the guards of his antagonist, seized him by the thigh and shoulder, threw him up, and held him with extended arms over his head, for a minute, in token of triumph, and then dashed him on the deck with such violence as to fracture his skull. The gentleman added, that he never saw men apparently possessed of such muscular strength. Our stoutest sailors appeared mere shrimps, compared with them. Their mode of life, constantly in vigorous action in the open air, and undebilitated by the use of stimulating food or drink, may be considered as a perpetual state of training. ED.

who

who drink moderately (and moderation with them is free-living among other people) are the strongest.

On a subject where I am more at home, my observations will lead to the conclusion, that the simplest mode of living is the most conducive to bodily health and strength. Though very young when I pursued cock-fighting, from nice observation, which enabled me to judge of a good cock, and from a rational mode which I fell into of treating them, I hardly ever lost a battle, even against odds ; but I will pursue the subject in your own order.

1st. There is not a doubt but that the sterling courage of an English game-cock depends upon parentage. It is a maxim in the cockpit, that if a cock has, what they call a *spice* of the dunghill, though ever so remote, when he is galled by the spur, he will run. I remember seeing a most famous cock, about eight years old, and who had in his time won forty battles, run at the last, when severely galled. A dunghill however fights harder for a round or two than a genuine game, whose courage is of a more temperate cast, and this very famous cock was an instance, who generally killed his antagonist with a stroke or two.

A true game-cock is, however, so well known by his marks, that a sportsman will rarely be mistaken. My mother has bought a clutch of chickens at the door, and I have selected from them one or two by my eye, which have proved incomparable. One of these chickens gained ten battles in one day, the last against an old cock, double his weight, and after mine, which was but a *stag* (that is one year old)

had been cut down to the ground, and was *counting out*, that is, given up for dead.

Large bones are always preferred in cocks, and it is an excellence to stand high on their legs, for this gives them an advantage over those of a squat make.

2d. The best manner of bringing up game-cocks, while young, is in a farm yard, in as free an air, and as much agreeable to nature as possible.

About three weeks or a month before they were to fight, I put them up, as it is called, or put them in a dark close penn, about two feet square. They are debilitated by being suffered to run among the pennis, and their muscles are not firm. The first week I fed them upon barley, though that is accounted a *scouring* food, but it answered best at the first period of their confinement. I fed them three times a day by measure, I cannot now ascertain the quantity, giving them very little water each time; and once a day, or once in two days, took them out to spar, or fight a few strokes with one another, with their spurs muffled. The second week, and during most of the remainder of their confinement, I fed them on pure wheat, according to the same measure, having always regard to the state and regularity of their bowels, and giving a little barley, if they appeared costive. During the last three or four days I gave them white bread, according to the same measure, though I do not think bread was any better than wheat; and some that I fed entirely on wheat, after the first week seemed to do quite as well as those which had bread.

This was the whole of the process which I employed.

ployed. I could always tell, by the firmness of the flesh upon the breast, whether my cocks were in order. I found them by far the strongest, without diminishing their activity, when they were *plump* but firm, without fat; and I question but they would have eaten as fine, and had nearly as much firm muscular flesh as a fowl from a London poulterer's. With this mode of management my cocks were four out of five, at least, successful.

3d. The training of the cocks, in the manner I have described, produces only a temporary effect; nor does it in the least seem to shorten their lives. I have known them live and fight at ten years old; whereas the poultry in my yard at present seldom reach that period.

4. I have heard of saffron and other drugs being given to cocks; but mine, which were plainly fed, always beat them. Opium or brandy may be necessary to Janasaries or Frenchmen, but no dram is necessary to excite the courage of a true game-cock, or a British soldier.

The Rev. Mr. P—— is a native of Yorkshire, and may possibly be able to give you some information on the breeding of horses, and the training of jockies. At all events, an application to him, mentioning my name, can do no harm, and you will find him an obliging and intelligent man. He lately sent me a letter on the culture of spring wheat, which I sent to the board.

I am, dear Sir,

With great respect, &c.

P. S.

P. S. I had forgotten one fact worthy of notice ; when a cock has been fought so hard that he is even *apparently dead*, I have known him restored to life by covering him up, all but his head, in a warm horse dunghill, or a common hot-bed in a garden. On this you may depend, and I have no doubt that the cocks I speak of would have died but for this treatment.

A short Account of the Manners in which Game Cocks are bred up and trained for fighting, by an experienced Feeder.

It is a general principle in breeding cocks, that large bones are not desirable, but that large muscles are. The thigh should be long, with as much muscle as possible. The legs should be of a medium length, and not short like the bantam breed. They cannot stand too high if the thighs are long. They should be round bodied and not deep (cailled) breasted. A small head is of essential importance, and it is a good sign to be hazle-eyed with black eye-brows. The black breasted red cocks in general stand the penn better than any other sort.

Parentage is certainly of great consequence, though there is often a very material difference between cocks hatched at the same time and from the same parents. The blood principally comes from the female. The likeness or outward shape from the male. The hens of the game breed are very spirited and even violent, and will not suffer a strange cock to have any connection with them.

Breeding

Breeding cocks *in and in*, or stale breed as it is called (that is keeping uniformly the same stock) is a very bad system. It reduces their size and takes away their vigour to so great a degree, that they can hardly propagate their species, and the same is remarked in horses. If game cocks are bred *in and in*, they will stand to be killed without flinching, but they have not spirit or activity enough to attack their foes with any effect. If intended for fighting, they should never be crossed with dunghill fowls, for any taint of that blood makes them unfit for a long contest. The best plan is, occasionally to cross with some of the game breed of a different stock.

It is of great importance to have cocks *inwardly clean*, that is free from fat, for on that depends their being in wind. Neither race horses nor game cocks that are inwardly fat can be in wind. To give them a good constitution, it is better to keep them as much as possible in the open air, on a grass-plot, and with a gravel walk to go to. The more gravelly the soil on which they are kept the better. Yards are dangerous, more especially where horses are physicked, as the cocks may pick up what may do them mischief. Cleanliness is particularly necessary. When young, the chickens are kept with the hen under a hutch, and fed with oat groats; when they become older they get unhulled barley, which is reckoned more nourishing than oats. When they are put up to fight they are kept in small pens and fed for three or four days with the very best barley. For drink they get about a gill and a half of water per day, of as soft a quality as possible, and with a little

little toasted bread put into it to make it still softer. During the remainder of their stay in the pennis, they are fed on one third wheat and two thirds barley, which is a nourishing diet, without being too costive. They are fed twice a-day, early in the morning and at eight at night. Before being fed the second time the crop is examined to see that it is quite empty and the food digested. They ought not to have, before they are put into the pennis, above three or four hens with them, and none after.

About four or five days before fighting they are physicked. The best medicine is about half a table-spoonfull of cream of tartar made up with butter into a pill. This they can easily be made to take. The object is to give them only two or three loose stools, which lightens them, and makes their flesh afterwards firmer. The day they are physicked they get nothing but a little warm water. Next morning they are put again on their hard feed of one-third wheat and two-thirds barley, and in the evening of that day they get a *hot meal*, consisting of wheat bread and milk, with a little white sugar candy. More than one meal of that sort would make them heavy or lumpy. In the summer season, after being physicked they get air the second day, but in the winter they ought to be kept warm without being at the same time too hot.

Brandy or any heating drug on the day of fighting does more harm than good. They may get, however, just before they set to, a few barley corns with a little real sherry wine.

A cock's first battle is his best, and a cock first
penned

penned, of equal goodness, will beat a double penned one.

Game cocks live fully as long as common fowls. In some cases they have lasted above fourteen years, and as sound as the first day. They are so hardy that they can be reared in the winter time much better than the dunghill sort. The cross between a game cock and a dunghill hen is excellent eating either as chickens or fowls.

The following is extracted from a Pamphlet, called
 THE COCKER.

On Dieting and Ordering a Cock for Battle.

In the dieting and ordering a cock for battle consists all the substance of profit and pleasure; and therefore expert cockers are very cautious in divulging their secrets, as they call them, of dieting, for on that depends the winning or losing the battle. *The best cock undieted, is unable to encounter the worst that is dieted.* Let others be as niggardly as they please of their experience and observations, for my part, I shall be free, and scorn to conceal any thing that may tend to the propagation of the art and mystery of cock-fighting; therefore as to the dieting and ordering of cocks, depend on the instructions following:

Your cock should be taken about the latter end of August, for from that time till the latter end of May, cocking is in the prime; the summer season
 is

is improper, by reason of the violent heat. Having taken them up, view them well, and see that they are sound, hard feathered, and full summed, that is, having all their feathers complete; then put them into several pennis, having a moving perch there in, to set it at which corner of the penn you think most convenient. The fashion and form of these pennis you may have at the house of any cocker, and therefore I presume any description of them here unnecessary; only be advised to keep your pennis clean. and let not your cocks want either meat or water, For the first four days after your cock is penned, feed him with the crumb of old manchet cut into square bits, about a handful at a time, thrice each day, that is, at sun-rising, at noon, and at sun-setting, and let his water be from the coldest spring you can get.

Having fed your cock thus for four days, or so long till you think he has purged himself of his corn, worms, gravel, and other coarse feeding, then in the morning take him out, and let him spar awhile with another cock. Sparring is after this manner. Cover each of your cocks heels with a pair of hots made of rolled-up leather, so covering the spurs that they cannot bruise or wound one another; set them down on straw, in a room, or green grass abroad; let them fight a good while, but if possible suffer them not to draw blood of one another; the benefit that accrues is this, it heats and chafes their bodies, and it breaks the fat and glut within them, and adapts it for purgation. Having sparred as much as is sufficient, which you may know when you see
 them

them pant and grow weary, then take them up, and taking off their hots, give them a diaphoretic, or sweating after this manner. Put them in deep straw baskets made for the purpose, or for want of them, take a couple of cocking bags, and fill them with straw halfways, then put in your cocks severally, and cover them over with straw to the top, then shut down the lids, and let them sweat; but do not forget to give them first some sugar-candy,^s chopped rosemary and butter, mingled together; let the quantity be of about the bigness of a walnut; by so doing you will cleanse their grease, increase their strength, and prolong their breath. Towards four or five o'clock in the evening take them out of their stoves, and having licked their eyes and heads with your tongue, put them into their pennis, and having filled their troughs with square cut manchet, and hot urine, let them feed while the urine is hot; for this will cause their scouring to work, and will wonderfully cleanse both head and body; after this, diet your cocks with white bread made after this manner; wheat-meal and oatmeal, each a gallon, kneaded into a stiff paste, with ale, the whites of half a score eggs, and some butter; having wrought the dough very well, make it into broad, thick cakes; and when they are four days old, cut them into square pieces. I will not advise you to use, as some imprudently do, liquorice, anniseeds, or rather hot spices, among your aforesaid ingredients; for they will make a cock so hot at the heart, that, upon the concluding the battle, he will be suffocated, and overcome with his

own

own heat : in short, that food is best, which is most consentaneous to his own natural feeding. The second day after his sparring, take your cock into a fair green close, and having a dunghill-cock in your arms, shew it him, and then run from him, that thereby you may entice him to follow you, permitting him to have now and then a blow ; and thus chase him up and down about half an hour : when he begins to pant, being well-heated, take him up, and carry him home, and give him this scouring, *viz.* half a pound of fresh butter, beat it in a mortar, with the leaves of herb of grace, hyssop, and rosemary, till they all look like a green salve ; then give him a piece as big as a walnut, stove him as aforesaid till evening, and then feed him according to former prescription. The next day let him feed and rest, and spar him the day after. Thus do every day for the first week, either sparring or chasing, and after every heat a scouring, which will keep him from being faint and pursy. Feed him the second week as you did the first ; but you must not spar or chase him above twice a week, observing still, that if you heat him much, you must stove him long, and give him a greater scouring, and little stoving, will serve him. This is time sufficient for ordering a cock for battle. You must not let his head be hurt by sparring. Towards the conclusion, you may moderately chase him twice or thrice in the time as aforesaid ; and give him his scouring, rolled well in sugar-candy, which will prevent his being sick. You may then let him fight, having first let him rest four days, observing that he come empty into the pit.

The following Remarks on the Means of producing the athletic Temperament, and on the Effects of that Condition of the System on Health, are extracted from the learned and judicious Work of Dr. BRYAN ROBINSON “On the Food and Discharges of Human Bodies.”

If the weight of the body of an animal be greater than its athletic weight, it may be reduced to that weight, by evacuation, dry food, and exercise. These lessen the weight of the body, wasting its fat, and lessening its liver ; and they encrease the weight of the heart by increasing the quantity and motion of the blood. And by lessening the weight and encreasing the heart, they will soon reduce the animal to its athletic weight. Thus a game-cock in ten days is reduced to his athletic weight, and prepared for fighting. If the food, which with evacuations and exercise, reduced the cock to his athletic weight, in ten days, be continued any longer, the cock will not have that strength and activity which he had before under his athletic weight, which may be owing to the loss of weight going on after he arrives at his athletic weight, and then falling on the heart, blood, and muscles, which must necessarily occasion a loss of activity and strength. It is known by experience, that a cock cannot stand above twenty-four hours at his athletic weight, and that a cock has changed very much for the worse in twelve hours. When a cock is at the top of his condition,

dition, that is, when he is at his athletic weight his head is of a glowing red colour, his neck thick, and his thigh firm; the day after, his complexion is less glowing, his neck thinner, and his thigh softer; and the third day his thigh will be very soft and flaccid. Four game-cocks reduced to their athletic weights were killed, and found to be very full of blood, with large hearts, large muscles, and no fat. The athletic weight of an animal is a very dangerous weight, by p. 67, and Hipp. Aph. 3. Sect. 1. Fevers and apoplexies are the disorders which commonly happen to animals, under or near their athletic weights. Horses fed upon dry food are much more subject to fevers and apoplexies than those fed upon grass; and the former are much nearer their athletic weights than the latter.

